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ABSTRACT

This document reports on a study that assessed levels of knowledge, types of attitudes, perceptions, and beliefs (KAPB) of the general South African public regarding Human Immunodeficiency Virus (HIV) infection and Acquired Immune Deficiency Syndrome (AIDS). Interviews were conducted with 5,360 participants; survey data are summarized in 49 tables. After describing the theoretical background and methodology used in the study, findings are grouped according to differences by gender, age group, language, geographic area, educational level, population group, occupation, and differential access to sources of information about AIDS. Study results indicated: knowledge of sexually transmitted diseases (STDs) was not very high, especially regarding prevention; and many believed that contraceptives also provided protection against STDs and HIV. Overall, awareness of AIDS seemed to be high, but with a mixture of appropriate and inappropriate knowledge about HIV/AIDS in terms of transmission, nature of the disease, seriousness, prevention, and cure. Conclusions and recommendations are grouped by knowledge about HIV/AIDS, perceptions of seriousness, condom use, support for behavioral change, self-efficacy in health, perceptions of social distance, the role of communication media, and further research needs. Appendices include the AIDS KAPB Study questionnaire, and schematic presentations of the data. (Contains 9 figures, 49 data tables, and 33 references.) (ND)

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ED 407 373

STUDY OF KNOWLEDGE, ATTITUDES, PERCEPTIONS AND BELIEFS REGARDING HIV AND AIDS (KAPB)

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1993

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MEMORANDUM PRESENTED TO THE DIRECTORATE PRIMARY HEALTH CARE OF THE DEPARTMENT OF NATIONAL HEALTH AND POPULATION DEVELOPMENT

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1. BACKGROUND AND AIM

1.1 Background

There is no known cure for AIDS and no viable immunization vaccine on the horizon. Therefore informing, educating and changing the attitudes and beliefs of the public with regard to HIV infection and AIDS remain the only strategy to prevent transmission of the disease. Because of the high premium placed on awareness and education programmes in the fight against the spread of the disease and due to the diversity and inequity in terms of educational and socio-economic standards in South African communities, health education programmes should be adequately targeted, researched, planned and evaluated. The Department of National Health and Population Development established an AIDS unit in early 1991. This unit, now called the AIDS Programme, called for tenders to be submitted for projects in a research programme to investigate various non-medical aspects of AIDS in this country. The research programme comprised different phases, the first being the development of a resource database, the second a knowledge, attitude, perceptions and beliefs study (KAPB study) among the general public and the last a series of qualitative studies among groups vulnerable to pertinent health risk behaviours.

The HSRC undertook the KAPB study of which the aim, method and findings are described in this report.

1.2 Aim

The aim of the study was to assess levels of knowledge, types of attitudes, perceptions and beliefs of the general public regarding HIV infection and AIDS. Since the first media reports on AIDS in 1981, the general public have been bombarded with reports on the pandemic, many of them carrying inaccurate and panic-provoking messages. The public awareness campaign of the AIDS Programme was carried by many media, and personal counselling through family-planning personnel, teachers, activists, ATIC counsellors and other concerned groups and organizations increased over the last decade. However, we are still not sure how these efforts succeeded in informing the public, i.e. furnishing them with the facts, changing attitudes towards sexual behaviours and to people affected/infected by HIV/AIDS and therefore encouraging behavioural change. Several studies, some of which are quoted in this report, have been undertaken in respect of specific target groups, i.e. school children, students at tertiary institutions, gay men, commercial sex workers, mineworkers, health care workers, teenagers and other *sui generis* populations which make the generalization of findings very difficult. In contrast, this study aimed to establish a valid baseline assessment of the levels of knowledge, the awareness, perceptions and attitudes of the

general public in order to recommend appropriate programme adjustment if needed. However, this study is not a pure measure of the AIDS Programme's awareness campaign because public opinion has been influenced by media type, stereotypes and other contaminating influences.

Because of the implied purpose of a KAPB study, the types of questions included in the questionnaire were chosen because of their:

(a) descriptive function relevant to programme evaluation (i.e. how many people have correct knowledge regarding AIDS and HIV, as well as the quantity of some attitudes relevant to the study); and

(b) predictive function in terms of possible risk behaviours (i.e. how knowledge, attitudes, perceptions, beliefs, behaviours and certain biographical traits relate to one another).

For the study to inform policy in terms of possible programme adjustments, the underlying attitudes, beliefs and perceptions also had to be investigated. The questionnaire therefore intended to measure: awareness of AIDS/HIV and the seriousness of the disease; knowledge of signs and symptoms; attitudes towards AIDS/HIV and people infected and affected by it; attitudes towards stereotypes (homosexuals and specific race groups); attitudes and beliefs with regard to safer-sex practices; access to sources of information; perceptions about personal vulnerability to infection; and perceptions about general health promotive behaviour.

2. THEORETICAL BACKGROUND

The concept "health" as used in this report encompasses the WHO definition of a state of well-being in terms of physical, mental and social functioning. It goes back to the early conceptualization by H.L. Dunn who viewed health to be an integrated method of functioning which is oriented toward maximizing an individual's potential. This has particular significance for health promotion as it:

(a) implies a process with direction and progress, enabling the individual to function at an even higher level;

(b) involves the total individual and his environment;

(c) concerns itself with how the individual functions within a particular environment;

(d) requires that the individual maintains a continuum of balance and purposeful direction within the environment where he or she is functioning.

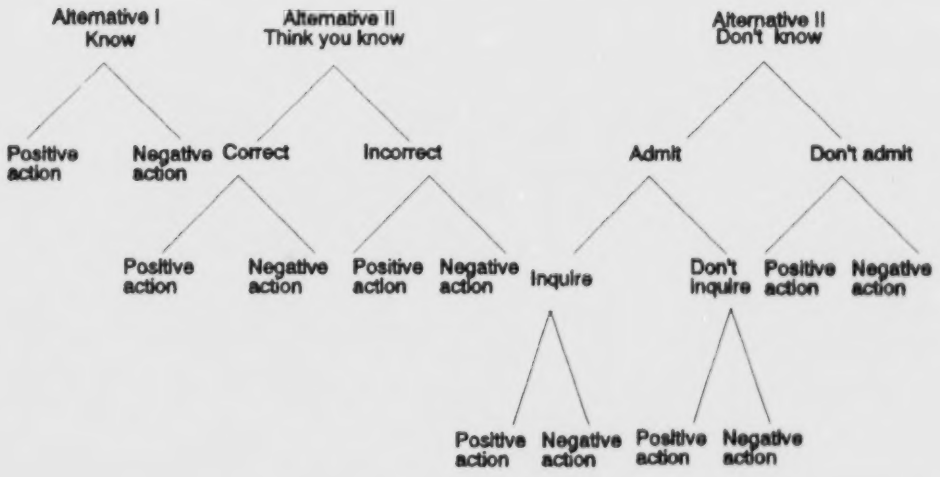
These aspects are also dealt within the ecologic model of health by H.S. Hayman who saw health as creative social adjustment and the result of continuous interaction between a whole spectrum of components and determinants of health.

Health education should thus aim to enhance health status by positively influencing health behaviour and by reinforcing behaviour and a style of living which promotes a more constructive and healthy life (Galli 1978).

It is possible for a target group to be highly aware of an issue without having correct information on it. Mathews *et al.* (1990:512) reported on their study of ±400 black school children: *"There was a high level of interest and concern about AIDS but a disturbing lack of knowledge."* The study group were confused about the actual modes of HIV transmission and their knowledge of prevention proved to be superficial.

The above-mentioned differentiation between awareness and knowledge of HIV/AIDS is related to the notion that knowledge is highly differential and multifaceted - that is, a member of the target audience of health communication can know the facts, think that he or she knows the facts or not know at all. Galli (1978:178) tried to describe these options in a graphical way as follows:

FIGURE 1
GALLI'S DEPICTION OF PROBABLE ASSOCIATIONS BETWEEN KNOWLEDGE AND ACTION



It is clear from Galli's flowchart that even the knowledgeable person might not follow the correct behaviour strategies due to other intermediate variables. Studies in respect of AIDS often conclude that although people are very knowledgeable of the fact that condom use prevents HIV infection, they fail to incorporate condom use or other safe-sex practices into their lifestyles. Evian *et al.*

(1990) found that amongst a group of 35 black urban literate adults, the majority (90 %) condemned condom use as they relate use of the method to distrust and unfaithfulness. Condoms were regarded as difficult to obtain, costly and interfering with sexual pleasure. A study among 429 mineworkers on the Witwatersrand revealed that 66 % of them never used a condom (Ijsselmuiden *et al.* 1990). Similar trends were found in studies of sub-Saharan African regions, such as a Zimbabwean study in which a little more than a third of sexually active men reported that they had ever used a condom. In this study, non-use of condoms was rather related to lack of correct information and misconceptions about condom use than to religious or cultural norms (Frame *et al.* 1991).

Govender *et al.* (1992) also concluded from a study of 50 women attending family-planning clinics in Johannesburg that condom use was extremely low despite the knowledge that HIV infection posed a serious threat and that condoms could prevent its spread.

Even the acquisition of knowledge and the creation of awareness are influenced by different intermediate variables, such as selective perception, the interpretation of messages and selective access to sources of information. People tend to be more knowledgeable about specific health matters which have personal meaning to them - that is, the salience of the health issue and the amount of personal effort required to follow the appropriate behaviour in relation to that particular health issue.

Because knowledge alone cannot motivate behaviour, the attitudes and values regarding behaviour must also be taken into account when planning health intervention strategies. Behaviour change, which is the goal of health education, is the result of changing attitudes and the successful integration of obtained knowledge.

Hubley (1987) as quoted in McKenzie & Oskowitz (1992:244) had the following to say about behaviour change and health education:

> *Health education is a positive process of participation resulting in behavioural change with improvement in health, thus not just the acquisition of knowledge but its application. Health education concerns all those experiences of an individual, group or community that influence beliefs, attitudes and behaviour with respect to health as well as the process and efforts of producing change when this is necessary for optimum health. The real reason for failure is often that the health education contains irrelevant information, promotes unrealistic changes, is directed at the wrong people and uses inappropriate methods.*

Loevinsohn (1990) described health education as part of a general development process enabling people to take control of their lives by gaining knowledge and skills necessary to prevent or control disease.

Galli (1978) distinguished between health information and health education in terms of results in the larger population. He argued that information resulted in the target population being correctly informed about appropriate health behaviours but not necessarily in behavioural change to adopt these actions. In contrast, the outcome of health education was that the target population was not only well-informed but also used the information in daily life, which resulted in higher levels of well-being.

Health education must thus deal with the cognitive, affective and action elements of human behaviour.

(a) Cognitive elements

These relate to an individual's ability to deal with information and involve:

(1) knowledge about a subject;
(2) comprehension of the message;
(3) application by recalling the information;
(4) analysis of the facts in order to understand it;
(5) synthesis of pieces of information to build a concept or idea;
(6) evaluation of the information by making quantitative and qualitative judgements about the accuracy, effectiveness or value of the message.

(b) Affective elements

These include values, interests, attitudes, emotions and beliefs, and involve:

(1) reception and recognition of stimuli;
(2) response to information in terms of acceptance, rejection or indifference;
(3) valuing in terms of internalization or failure to internalize a value;
(4) organization of feelings in terms of priorities and the demands of a situation;
(5) building a value complex in which a system of accepted values is integrated and impacts on behaviour.

(c) Action elements

These include physical and mental abilities to perform certain acts.

The problems of the breakdown in the knowledge, awareness, attitude and behaviour sequence present themselves dramatically in the sexual behaviour of teenagers.

In their study of a group of black high school pupils, Frame *et al.* (1991) found that among those who were sexually active 53 % had multiple sexual partners and 50 % had unprotected intercourse. As young people presented an ideal group for primary prevention because they are at the threshold of establishing fixed sexual behaviour patterns, Frame *et al.* (1991:7) concluded:

> *Interventions should promote children's beliefs in themselves regarding their ability to perform health enhancing actions. They should promote a sense of autonomy and mastery over one's own behaviour and environmental demands, thereby strengthening their ability to take decisions which will have a positive effect in their lifestyle and health.*

Breytenbach *et al.* (1990) concluded that knowledge of AIDS did not influence the sexual behaviour of the majority of university students in their sample, but they were unable to differentiate between those who did not change their behaviour due to carelessness and those who did not need to change because they did not engage in risk behaviour.

The process of valuing as described in (b) above is sometimes referred to as "value clarification" and is made possible when the health educator presents the target audience with a choice of alternatives and clearly explains the consequences of each choice. In this way the individual freely chooses a given alternative and acts on that choice in a consistent manner so that the action becomes a life pattern (Galli 1978).

The value clarification technique enables the target audience to make a decision regarding health promotive actions, but once again confirming that a particular behaviour within a particular setting is dependent upon what J. Fletcher refers to as "situation ethics". Thus even a person who has gone through the process of value clarification might in a given situation decide that unprotected sexual intercourse is valued despite the cost of contracting STDs or HIV. This means that the health education process can never be seen as completed as it takes time and repetition for behaviour to change and become fixed in the individual (Galli 1978).

The important role of attitudes in behavioural change and in interventions relating to the encouragement of adopting healthy lifestyles cannot be stressed enough. In AIDS education, the dissemination of information has to go far beyond the factual understanding of the disease and one has to address negative attitudes and biases which are probably formed prior to the first diagnosis of AIDS. The link between these pre-existing attitudes and beliefs on the one hand and HIV and AIDS on the other hand may not be overt (Schlebusch *et al.* 1991). However, attitudes, values, beliefs, perceptions about personal risk of infection, cultural norms, the influence of family, peers and the media all play a role in the adoption of appropriate behaviour (Matthews *et al.* 1990).

People tend to search for a balance and for congruity in terms of their thoughts, beliefs, attitudes and behaviours. S. Schachter believes that this search and desire for cognitive clarity prompt people to reduce any ambiguities they may encounter. When the target audience are confused about the health education they receive regarding a given topic, e.g. STDs and HIV, they may seek an end to their intolerable feelings by acting without adequate evidence as to the appropriateness of the course of action taken. They might also respond to confusing or conflicting information by rejecting the message, doubting the communicator or source of information or by interpreting the meaning of the message so as to reduce its threat. For example, people can regard AIDS as being a threat to homosexual people only, dismissing messages about heterosexual and other means of transmission, thus accepting only parts of information which suit their attitudes and which reduce feelings of personal vulnerability. These concepts are also explained in Festinger's theory of cognitive dissonance (Galli 1978).

Several models were developed to try to explain how the different knowledge, attitudinal, value and belief components interact with one another and eventually influence behaviour. Some of these are described briefly in the section which follows.

Because this study was a baseline KAPB study among the general population and due to the aims expressed earlier in this work, the conclusions of the study cannot be interpreted as testing the utility of existing theoretical models regarding health-related behaviours. Some of the theoretical thought and debate are given as background to orientate the reader and to explain certain concepts.

2.1 Psychosocial models

2.1.1 The health belief model

The health belief model (HBM) is a conceptual formulation for understanding why individuals engage or fail to engage in a wide variety of health-related actions. The HBM was developed in the early 1950s by a group of social psychologists in an effort to establish why people fail to accept health and medical care recommendations (Janz & Becker 1984; Petosa & Jackson 1991).

The HBM focuses primarily on the study of disease prevention and is based on the following principles:

(a) Perceived susceptibility: an individual's perception of being personally vulnerable to a condition and his/her subjective perception of risk;

(b) Perceived severity: how one evaluates the seriousness of the disease in terms of medical and social consequences;

(c) Perceived benefits: beliefs about the efficacy of various actions available in reducing the risk of contracting the disease;

(d) Perceived barriers: beliefs about the "cost-effectiveness" of the actions (e.g. costs, side-effects, inconvenience etc.);

(e) A quest to actions, which trigger the decision-making process can either be internal (e.g. symptoms) or external (mass media campaigns, counselling);

(f) Different demographic (age, sex, ethnicity), socio-psychological (social class, peers, personality) and structural (setting, knowledge, campaigns) variables which act on the above-mentioned dimensions,

(g) Likelihood of action: This is related to the perceived benefits of the action weighted against the perceived barriers. For instance, due to cultural norms about the female role in a permanent relationship a woman who knows that her partner is a likely carrier of HIV due to his sexual behaviour might nevertheless be convinced that she has no right to insist on condom use or on him changing his risk behaviour. Likelihood of action will thus be highest when the perceived benefits outweigh the perceived barriers. The greatest conflict arises when benefits and barriers are perceived as being equal. (Janz & Becker 1984; Galli 1978);

Because the HBM grew from the theories of Kurt Lewin, it has a phenomenological orientation. Janz and Becker (1984), in their review of HBM studies, concluded that the perceived susceptibility and perceived severity dimensions are problematic when studying preventive health behaviours. These two dimensions pose specific problems when

(a) the target population for the study or the intervention is asymptomatic;

(b) when the disease manifestation in terms of health threats is not clearly visible in the general public or is long term;

(c) when the target population has little personal experience of the disease.

It seems as though these problems can present themselves in the case of measurement and in the case of efforts to influence the severity and susceptibility dimensions of HIV infection and AIDS. Ijsselmuiden *et al.* (1990) found a positive correlation between a feeling of being at risk of contracting HIV infection and the level of education among black mineworkers in the PWV area. In a sample of almost 500 black men, 20 % felt personally susceptible.

Mathews *et al.* (1990:515) commented: *"In order for information to be hurried into action, people need to feel a personal vulnerability to the disease."* The researcher warns that stigmatization of the disease is often the end product of a process of denial of personal risk.

The HBM is based on the assumption that health is a highly valued goal for all individuals so that the "cues to action" are prevalent. As such, the HBM on its own may thus not always be very useful for or relevant to explaining behaviour related to the prevention of HIV infection and AIDS.

Specifically, the concept "subjective norm" or "social approval" of the intended health promotive behaviour as developed by Fishbein and Ajzen, is not part of the traditional HBM, but extremely relevant to HIV/AIDS. Another addition to the HBM dimensions which is relevant to HIV/AIDS is the concept "self-efficacy" which has been developed by Bandura. Self-efficacy is a personal conviction that one can successfully execute a given behaviour which is required to produce specific outcomes. The same concept is sometimes referred to as "perceived behavioural control" or as "perceived barriers" (Janz & Becker 1984).

Bandura conceptualized self-efficacy as a mediating factor in behaviour change which offers a possible explanation for persistence of high-risk health behaviour among groups who are well informed of the dangers of their behaviour (Ulin 1992).

The risk of HIV transmission is however also the product of social, cultural, economic and interpersonal forces which determine the complexities of human behaviour. So beyond intrapersonal control, there are interpersonal and non-personal factors influencing human interaction.

Referring to teenage pregnancies, McKenzie and Oskowitz (1992) concluded that these are regarded as a problem by the pregnant girl, her boyfriend and their families, but that behavioural change does not take place. The researchers ascribe this to breakdowns at two stages in the process of behavioural change, namely at:

(a) the attitude change stage: peer pressures are in favour of teenage sex;

(b) the enabling factor stage: modern, effective means of contraception are not accessible and acceptable to all sexually active teenagers (McKenzie & Oskowitz 1992).

Galli (1978) described a refinement of the HBM by Waingrow and Horn which they called the "model for personal choice" in health behaviour. To them, cessation of high-risk behaviour is dependent on:

(a) Motivation for change of "values" which includes
- protection of health;
- setting an example;
- aesthetic reasons;
- desire for control.

(b) Perception of the threat based on
- importance of the threat for the individual;
- value of change;
- capability of making the change.

(c) Overcoming the psychological utility of the unhealthy behaviour as a mechanism to cope with the social environment which includes things such as
- stimulation;
- "handling life";
- pleasure;
- reduction of negative feelings;
- addition;
- habits.

(d) Considering those factors which facilitate or inhibit continued reinforcement of the specific behaviour which may include
- the influence of a physician;
- the general climate or public opinion;
- influences such a social marketing, advertisements or awareness campaigns;
- the influence of significant others (groups);
- interpersonal influences (specific individuals).

Nyamathi *et al.* (1990) described the relevance of the HBM to AIDS education and believed that the major concerns and needs of the target groups must first be understood, as well as their sense of self-esteem, locus of control and coping strategies. This understanding must be translated into action in presenting the target audience with accurate information about AIDS and risk reduction behaviours, dispelling myths and promoting the motivation to change behaviour. Skills training is regarded as critical in promoting planned behaviour change. This should include demonstrating correct condom use and role-playing of condom negotiation between potential partners for the behaviour modification to be sustainable. Environmental resources must also be provided.

Simon and Das (1984) went further in elaborating on the application of the HBM in terms of a needs assessment tool in health education with regard to STDs. They studied the dimensions of the HBM in relation to one another and to the likelihood of action and made specific recommendations for programme improvements. They specifically stressed that increasing the perceptions of severity would not result in much unless it was accompanied by detailed action plans on what to do, what to anticipate and how to deal with anticipated barriers. Simon and Das placed great emphasis on the target population's negative perceptions about the perceived effectiveness of preventive measures in STD education. They came to the conclusion that education should provide positive feedback on the effectiveness of primary prevention actions and emphasized the importance of secondary preventive measures. They also recommended the involvement of peer leaders as well as credible communication and education sources for disseminating health education messages and to act as referral sources and support systems.

Petosa and Jackson (1991) warned that in using the HBM to predict sexual intentions, it had to be kept in mind that forces other than health concerns, such as need of acceptance, esteem and affection could influence sexual intentions. Especially among teenagers, engaging in sexual affairs is often valued as an important indicator of a transition to a mature or adult status.

An attitudinal aspect of importance in AIDS awareness campaigns, but which is more related to creating a social climate of acceptance and tolerance for people affected and infected by HIV than with personal health behaviour, is the measurement of attitudes to people with AIDS.

In a study of 240 university students Breytenbach *et al.* found that 46 % displayed a negative attitude towards people infected with HIV.

2.1.2 Fishbein and Ajzen: theory of reasoned action

The theory of social behaviour developed by Fishbein is often quoted in research dealing with health education interventions which aim at effecting behaviour change in favour of health-enhancing actions in target populations.

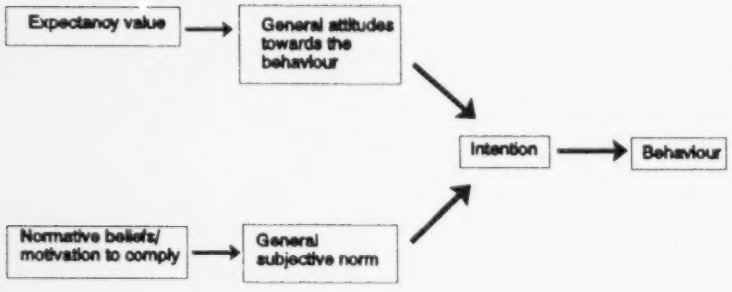
Fishbein and Ajzen later developed the theory of reasoned action or TRA. According to this theory, an individual's behaviour is a function of the intention to perform that behaviour. Behavioural intentions are in turn dependent upon two factors:

(a) attitudes towards performing the behaviour, as well as beliefs about the consequences of performing the behaviour; and

(b) perceptions of other people's attitudes of the behaviour (normative beliefs or subjective norm).

The attitude dimension is seen as the multiplicative function of beliefs about likely outcomes stemming from performing the behaviour and an evaluation of these outcomes. The subjective norm is in turn influenced by perceptions of normative referents' (such as partners, parents, peers) likes and dislikes which encourage and discourage the behaviour and which motivate the individual to comply with these subjective normative referents (Davidson & Jaccard 1975; Boyd & Wandersman 1991).

FIGURE 2
THEORY OF REASONED ACTION



(From: Boyd & Wandersman 1991:1813)

The notion of behavioural intention stems from the work by Fishbein and Jaccard. According to them, behavioural intentions comprise four elements:

(a) action;

(b) object towards which the action is directed;

(c) situation in which the action occurs;

(d) time at which the action takes place.

The maximum attitude-intention correlation will occur when all four dimensions are optimal in terms of specificity. In other words, to find out whether a person will start using a condom within the next year, one must assess his attitude towards using a condom within the next year and not his attitude towards condom use *per se* (Davidson & Jaccard 1975).

Fishbein later recommended that measurement of attitudes towards the object should be replaced with measurement of attitudes towards the act if one wants to predict specific behaviours.

Davidson and Jaccard (1975) concluded that performance of the intended behaviour "feeds back" to the beliefs about the consequences of performing that behaviour. This feedback loop is the dynamic behind attitudinal and behavioural change.

2.1.3 The Triandis model

H.C. Triandis developed the model of attitude behaviour relations which is similar to the TRA, but Triandis added the dimensions of:

(a) motivation to perform the behaviour in terms of personal susceptibility;

(b) facilitating conditions in terms of

  (i) self-efficacy - a sense of personal control over the action, e.g. insisting on condom use;

  (ii) perceived knowledge about preventive actions;

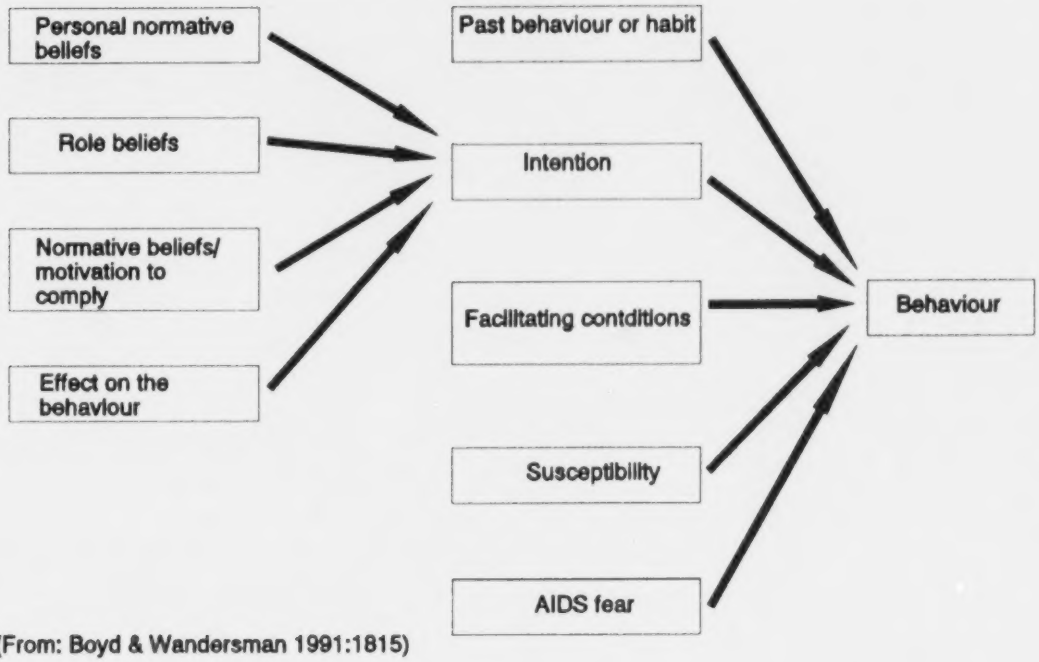
  (iii) past behaviour or habits;

(c) affective attitudes or emotional responses regarding the behaviour;

(d) social factors which include the TRA's subjective norm but also take personal normative or moral beliefs (feeling of moral responsibility to use a condom) and role definition beliefs into account (if preventive sexual behaviour is appropriate in terms of an individual's perceived role in a relationship or society as a man, woman, teenager etc.).

This study did not attempt to test any of the models described above, but took cognisance of the types of independent variables common to the models. Answers regarding perceived susceptibility,

FIGURE 3
TRIANDIS MODEL



(From: Boyd & Wandersman 1991:1815)

sexual intercourse and condom use were elicited from randomly chosen respondents on a non-coercive basis and could not be verified for correctness or social acceptability. Furthermore, the model dimensions are typically measured through sophisticated Likert-type scale questions which were not deemed appropriate for a baseline KAPB study with a target sample population which included members with low levels of literacy.

2.1.4 The construct accessibility perspective

This theoretical viewpoint sees cognitive constructs or knowledge and awareness as more likely to guide behaviour when they are "accessible" in terms of memory recall. Frequent use of a construct activates it and assures permanent accessibility. For instance, a family-planning or AIDS awareness programme may aim to increase the target audience's awareness of the negative consequences of unprotected sexual intercourse. Temporary accessibility of these constructs is increased through primes such as posters, announcements, special awareness weeks or speeches by opinion leaders. Repeated exposure to these primes helps to make constructs of consequences of unprotected intercourse permanently accessible for the target groups.

In the construct ability perspective, the target audience is divided in terms of chronics (people likely to have concerns about unprotected sex) and non-chronics (people unlikely to have concerns about unprotected sex). Chronics think and talk more often about the consequences of unprotected coitus than do the non-chronics. Aspects already described in the other models such as severity beliefs, perceived susceptibility and cues to action or primes are also taken into account in this perspective. Furthermore, it attempts to describe how specific primes can increase concerns for consequences (Noms & Devine 1992).

2.1.5 Other psychosocial variables

From their review of models explaining health actions, Cummings *et al.* list certain model variables which were not described in the discussion of models given in this text thus far. These include

- willingness to recommend behaviour to others;
- conjugal power structure between husband and wife;
- extra-spouse communication;
- sources of information;
- topics on which information is sought;
- attitudes towards providers of care;
- internal and external locus of control;
- fear;
- family and community resources.

2.2 Social perspectives

The HBM and other psychological models are critized for not sufficiently considering the link between the healthy or unhealthy behaviours and lifestyles of individuals and their social environments. Such societal determinants are, *inter alia*,

(a) formal and informal leadership in a community;

(b) sources of power (individuals or groups in a community who have power in terms of political actions may not be influential in terms of health issues);

(c) health needs and health care resources;

(d) cultural norms, local values, religion, dietary codes and customs;

(e) socio-economic structure of the community;

(f) total community development needs;

(g) demands of a health care or health education programme in terms of community support versus individual support and time frames in terms of immediate actions and sustained efforts over a long period of time (in terms of AIDS awareness, community support must

be attained, but individual behaviour and attitudinal change in a long-term, sustained fashion is also striven for);

(h) encouragement of participation in assuming responsibility for the decision and execution of health tasks;

(i) urban-rural differentials, social cohesion and the level of community organization;

(j) perceived convenience and visibility of health programmes in a community;

(k) population density;

(l) group identification, group participation, collective perceptions, social class, membership in social organizations and levels of education;

(m) role of opinion leaders on every possible social, economic and occupational level regarding the flow of health information;

(n) patterns and methods of communication;

(o) perceptions regarding the social acceptability of particular health actions;

(p) role and status of the family and its individual members, family structure and child-rearing practices (Galli 1978).

Many studies point to the fact that minority populations in developed and developing countries, and particularly the poor, have been disproportionately affected by HIV infection. These vulnerable groups have been affected by specific barriers that hamper the efforts of AIDS awareness, information and education programmes such as:

- available programmes lacking social and cultural relevance for these groups;
- inadequate knowledge of the real needs, concerns and coping strategies of these groups;
- the lack of culturally and educationally sensitive instruments to assess the knowledge, attitudes, beliefs, perceptions and behaviours of these groups;
- underutilization of health care services;
- low educational levels;
- unemployment;
- the low social status of women (Nyamathi *et al.* 1990).

Ulin (1992) concluded that there is enough empirical evidence to suggest that poverty, lack of better resources and a desire for upward social mobility lead many women to exchange sexual favours for economic survival. Not all of these women are commercial sex workers; some engage in casual sexual affairs for financial support to complete their education (the so-called "sugar daddy" phenomenon).

Another "social" or structural (infrastructural) factor to be considered when studying health behaviour is the accessibility and acceptability of sources of information.

Breytenbach *et al.* (1990) found the printed media to be the most important sources of information on AIDS for university students. This was followed by the electronic media. Extremely low levels of informative communication with regard to AIDS were however reported in the parent-child relationship as well as in peer group circles.

Ijsselmuiden *et al.* (1990) however found close friends to be the most important information sources on STDs for black mineworkers while the media and medical staff were their most important sources of information on AIDS/HIV infection.

In their study of the knowledge, attitudes and perceptions of black high school children, Mathews, *et al.* (1990) reported that these teenagers preferred to discuss sexuality with a close friend and 58 % of the sample of 377 children discussed issues relating to AIDS with their friends. Research undertaken by others also indicates that school children learn about AIDS from the mass media and that, due to insufficient exposure, they learn little from health workers (McKenzie & Oskowitz 1992).

De Pietro and Clark (1984) proposed that sources of information be chosen by individuals in a search to find answers of immediate relevance to them. They found that adolescents who used many sources were more home-oriented and that regular media users in the peer group tended to become peer advisors to other teenagers. They tended to seek more and new sources of information and engaged in more health decision-making steps according to the acquisition of new information.

Karim *et al.* (1991) studied the possibilities and roles of urban black mothers as potential important agents for the education of teenage children regarding sexuality and AIDS. The 122 mothers in this study's sample were aware of AIDS, knowledgeable about heterosexual and vertical transmission of HIV, about condoms and about single-partner relationships as preventative measures. Their sources of information were both non-personal (radio and newspapers) and interpersonal (friends and clinic personnel). None of the mothers however used condoms, only 5 % felt personally susceptible to the disease and two-thirds believed that AIDS is curable. As far as sources of information for their children are concerned, none of the mothers ever discussed AIDS with their teenagers. The only topic in human sexuality that some mothers discussed with their daughters was contraception and this information was offered at a mean age of 14 years. Teenage pregnancies occurred in both generations of these families.

As far as gender and social sex roles are concerned, De Bruyn (1992) concluded from a literature review that the impact of AIDS is greater for women due to four reasons:

(i) stereotyping in respect of HIV transmission and the identification of so-called "high-risk groups" result in either blaming women for the spread of HIV infection or of failing to see them as potential carriers of HIV;

(ii) various factors (such as the nature of human coitus) place women at increased risk of exposure to HIV infection;

(iii) psychological and social burdens (e.g. motherhood, marital dissolution, loss of security or income) of the disease are greater for women than for men;

(iv) in some settings their social position makes it more difficult for women to undertake preventive measures.

Although these vulnerabilities provide indications for the need to develop specific women-oriented policies and interventions to address the problems which women face, programmes which directly appeal to men are also needed. De Bruyn (1992) suggested a social marketing programme which emphasizes condom use as a "manly habit", or as something that "in people" use or which emphasizes the special role and responsibility of a man to prevent the spread of HIV to future generations.

Ulin (1992) argued that prevention campaigns do not take sufficient cognisance of the cultural, social and economic constraints in women's abilities to comply with strategies such as limiting sexual partners and using condoms.

Prevention of HIV transmission is dependent on the co-operation of both partners and is deeply dependent upon successful negotiation between partners and the cultural and social dynamics of sexual interaction. Dixon and Dyson as well as Moore and Stein (quoted by Ulin 1992) all hinted at societal forces strongly defining the way in which women perceive their locus of control and their self-efficacy in health behaviour. They referred for example, to childhood socialization, laws governing marriage, divorce and property rights, access to material and social resources, prestige, autonomy and social and demographic mobility.

Ulin (1992) also warned that in a traditional setting, older women might act as gatekeepers in sexual behaviour change and that sustained attitudinal and behaviour change had to come from inside the social group in a process of supportive re-patterning of sexual norms.

Social learning theory proposes that young people learn behaviours in a social context by observing models. At-risk sexual behaviour is often portrayed in the popular media in such a way that it

becomes associated with values such as attractiveness, popularity, success, sophistication and maturity (Petosa & Jackson 1991).

With heterosexual and vertical modes of transmission becoming the more dominant patterns of HIV transmission as the pandemic unfolds, women's vulnerability in terms of control or lack thereof in a sexual encounter becomes a major area of concern. Many researchers fear that women - especially those who are disadvantaged and belong to a minority group - are not fully capable of negotiating safer-sex practices with their male partners. Within some social groups, the role of women in sexual relationships is so defined that "women attempting to broach the subject of condoms in the context of such relationships risk appearing unfaithful, overly dominant and inappropriately interested in sex" (Kline, Kline & Oken 1992:447).

Kline *et al.* (1992) however cautioned that a lack of control over sexual decision making was not necessarily such a significant barrier to condom use for many women as might be believed by AIDS educationists. They felt that assessment of risk with a specific partner in a specific situation, and evaluation of these risks against own expectations of potential physical discomfort or reduced sexual pleasure might be of greater importance. They also suggested that cultural factors more often function as facilitator rather than prevention factors where safer-sex practices are concerned. Some women appeal to their partner's sense of responsibility as "protector of the family" to encourage male condom use. It must be pointed out, however, that these conclusions by the researchers are based on a study of urban women and cannot be generalized to women in rural and more traditional settings.

2.2.1 The epidemiological model

This model is based on the work of Lazarfeld and includes the following three components:

(i) internal tendencies predisposing the individual towards or against certain behaviour;

(ii) external influences which promote or prevent the behaviour;

(iii) inherent attributes of the behaviour which attract or disconcert the individual (Galli 1978).

Health behaviour and the study of risky sexual behaviours will include

(i) the psychological and social characteristics of the individual;

(ii) the physical and, more importantly, the social environment; and

(iii) the characteristics of the actions or the objectives of the action. Examples are given in the table below:

EXAMPLES OF THE DIMENSIONS OF THE EPIDEMIOLOGICAL MODEL AS RELATED TO THIS STUDY

I. INTERNAL TENDENCIES	II. EXTERNAL INFLUENCES	III. ATTRIBUTES OF THE ACTION
1. Recognition of the seriousness of AIDS	1. Social pressures to adapt to, or avoid, responsible behaviour to prevent infection	1. Effectiveness of the action in avoiding infection
2. Acceptance of personal vulnerability to HIV infection	2. Incorporating the action into role performance	2. Pleasure of action
3. Predisposition to act responsibly to avoid infection	3. Social acceptability of actions, e.g. condom use, one-partner relationships or celibacy	3. Effort required, e.g. in obtaining or using condoms
4. Motivation to act		4. Previous experience
5. Ability to act		5. Environment in which the action will take place
6. Knowledge of the correct action		
7. Belief in the action		

3. METHODOLOGY

3.1. Research design

3.1.1 Quantitative method

In accordance with the aim of the investigation as described above, the nature of the baseline KAPB study demanded a more quantitative assessment of the dimensions such as knowledge, attitudes and behaviours. The KAPB study was regarded as a separate phase in the AIDS research endeavour aimed at informing policies and strategies in AIDS education, information and support services in this country. The study must however also be seen in its relation to the more qualitative phases in respect of specific target groups. Certain open-ended questions were also included in the questionnaire in order to gauge the specific experiences of respondents in terms of certain questionnaire items.

This baseline KAPB study did not aim to conform to the demands of a strict quantitative, positivist research methodology aimed at providing indisputable evidence for behavioural interventions in the general population with regard to high-risk health behaviours. Such an orientation would not do

justice to the complexity of human interaction, in particular in a sensitive area such as human sexuality. Rather, the dimensions relevant to knowledge, beliefs and attitudes were included in the questionnaire and a random sample survey design was used to collect the data.

3.1.2 Development of the questionnaire

(i) Consultation

The questionnaire was developed by the research team of the HSRC in co-operation with representatives of the AIDS Programme and in consultation with experts in the field of AIDS education, service delivery and research. The group of consultants whose comments on the draft questionnaire were included in the development of the questionnaire for the pretest were Prof. R.P. de la Rey of the University of Pretoria, Dr Clive Evian of the Johannesburg AIDS Community Information and Support Centre, Mr Dave Green of MASA, Dr J. van Arkel of UNISA, Dr M. Joubert of the Department of Education and Training, Allison Munroe and André Croukamp of the SAIMR and Mrs T. van der Velde of ATIC in Cape Town. Other experts were also contacted, but were unable to respond within the given time frames.

(ii) Pretesting

The questionnaire was pretested in two black schools to establish the children's comprehension of the language and contents. From the findings of the pretest and on the recommendations of the consultants, the questionnaire was shortened considerably. Preliminary analyses were also undertaken on the data from the pretest to guide the researchers in selecting the questions for inclusion in the final questionnaire. Dr Nicolaas Claassen of the HSRC acted as advisor. Permission was obtained from Miss Carole Welman to use the final questionnaire in the fieldwork.

(iii) Final questionnaire

The final questionnaire was approved by the AIDS Programme and included questions on the public's awareness of AIDS, their knowledge of the modes of transmission and prevention. It also addressed the public's perception of the seriousness of the disease, attitudes towards sexual activity, condom use, teenage sexual behaviour and feelings of social distance from HIV infected people. Sources of information were established, and needs regarding AIDS communication and information were researched. An attempt was made to gauge the presence of AIDS preventative behaviour, and two questions on confidentiality between health professional and client were included.

In the questionnaire HIV and AIDS were not treated in all instances as two separate concepts because most of the consultants felt that the general public is not able to always correctly distinguish between the two. Schlebusch *et al.* (1991) found that even health care professionals, who should be more knowledgeable about HIV and AIDS, had difficulty in differentiating between HIV infection and AIDS.

For three aspects of sexual behaviour, namely the type of sexual relationship, prevalence of STDs and the use of condoms, the study relied on self-reporting by respondents in the interview but could not verify for correctness. The possibility of measurement bias in these instances cannot be ruled out, but the measurement of the validity and reliability of the measurement instrument can be of some use in this regard.

3.1.3 Validity

(i) Face validity and content validity

The questionnaire covered most relevant aspects described in theories and literature about health behaviour as being important variables. Several experts were also consulted in the drafting of the questionnaire for the pilot study and their suggestions were accommodated as far as possible. Apart from this, the inclusion of items regarding knowledge, attitudes, perceptions and beliefs also drew on results from a previous study by the HSRC[1] in which certain aspects were found to be statistically significant.

Those questions which proved to cause confusion among the respondents in the pretesting were either altered or deleted in view of the final fieldwork.

Content validity was thus established in the development of the questionnaire through consultation in respect of appropriateness and through revision after testing.

3.1.4 Reliability

(i) Internal consistency of measure

Cronbach's alpha (a reliability coefficient based on internal consistency) was used to establish the mean correlations between items in the factors extracted from the data. These are given in the description of the factors in the next chapter.

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[1] See Meyer-Weitz, A. & Steyn, M. 1992. *AIDS preventative education and life skills training programme for secondary schools: Development and evaluation*. Pretoria: Human Sciences Research Council.

(ii) Other

Other estimates of reliability, e.g. split-half or test-retest methods, are not applicable in this study.

3.2 Sampling

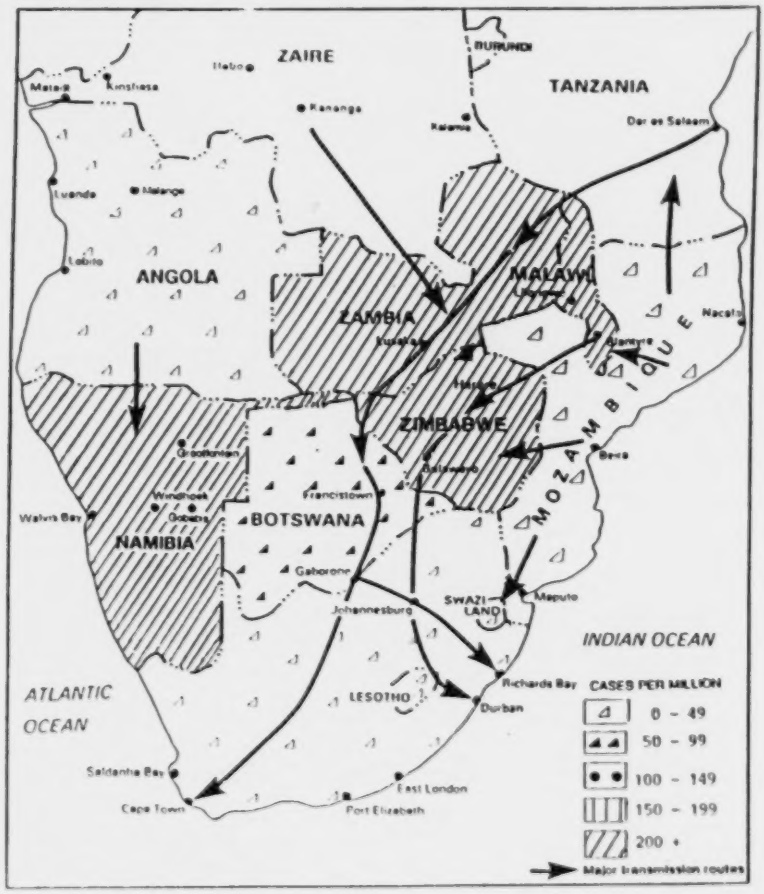
3.2.1 Sampling frame

Areas of estimated and probable high prevalence of HIV infected people were considered as the sampling frame. At that stage of the study, the researchers relied on material such as Alan Whiteside's position paper *AIDS in Southern Africa* (1990) and the Department's *Update* to establish which areas should be included in the sampling frame.

The following map is Whiteside's (1990:6) interpretation of the major transmission routes of HIV infection in Southern Africa.

FIGURE 4

MAJOR TRANSMISSION ROUTES OF HIV INFECTION ACCORDING TO WHITESIDE



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The following figures regarding the geographical distribution of AIDS cases from *Update* were also used as a guide:

TABLE 1
GEOGRAPHICAL DISTRIBUTION OF AIDS CASES[2] AND NUMBER OF DEATHS

PLACE	NUMBER OF CASES	NUMBER OF DEATHS
TRANSVAAL		
Barberton	1	0
Balfour	1	1
Bekkersdal	2	2
Benoni	1	1
Boksburg	1	0
Bushbuckridge	1	0
Carletonville	2	0
Daveyton	1	0
Delarey	1	1
Evaton	3	0
Fochville	1	0
Johannesburg	288	143
KaNgwane	15	5
Katlehong	1	1
Klerksdorp	5	2
Komatipoort	1	0
Krugersdorp	2	1
Leslie	1	0
Messina	1	1
Natalspruit	1	0
Nylstroom	1	1
Orkney	1	0
Pietersburg	2	1
Piet Retief	2	0

[2] Source: *Update, Aids in Southern Africa* (as on 31/03/92). Information released by the Department of National Health and Population Development, based on anonymous data supplied by the SAIMR

PLACE	NUMBER OF CASES	NUMBER OF DEATHS
Pretoria	31	20
Randfontein	1	1
Rustenburg	1	0
Sebokeng	3	1
Soweto	138	54
Springs	4	1
Tokhosa	1	1
Tzaneen	1	0
Vosloorus	1	0
Westonaria	2	1
Subtotal	519	239
OFS Bethlehem	2	0
Bloemfontein	39	14
Bultfontein	1	1
Ficksburg	1	1
Jagersfontein	1	0
Kroonstad	5	1
Ladybrand	2	1
Noupo	1	0
Odendaalsrus	1	1
QwaQwa	1	0
Reddersburg	1	0
Theuniskraal	1	1
Virginia	1	0
Welkom	13	6
Winburg	2	1
Witsieshoek	1	0
Subtotal	73	27
NATAL Durban	196	22
Edendale	3	2

PLACE	NUMBER OF CASES	NUMBER OF DEATHS
Empangeni	11	2
Eshowe	15	0
Estcourt	2	0
Kokstad	1	0
KwaZulu	88	1
Ladysmith	6	1
Natal	2	1
Newcastle	1	1
Northern Natal	9	0
Paulpietersburg	1	0
Pietermaritzburg	50	1
Port Shepstone	2	0
South Coast	2	0
Stanger	1	1
Vryheid	1	0
Subtotal	391	32
CAPE PROVINCE Alicedale	1	0
Barkly East	1	0
Cape Town	145	81
Ciskei	2	1
East Griqualand	1	0
East London	3	3
Flagstaff	1	1
Grahamstown	2	2
Kimberley	1	0
Lady Grey	1	0
Paarl	1	1
Port Elizabeth	39	35
Somerset East	1	0
Transkei	1	0
Uitenhage	2	2

PLACE	NUMBER OF CASES	NUMBER OF DEATHS
Upington	1	0
Subtotal	203	126
TOTAL	1 186	424

This information led to the demarcation of the following study domains and subregions[3]

(a) Northern route from Zimbabwe:

- Messina and Nancefield, Louis Trichardt and Hatshikoro, Potgietersrus and Mahwelereng, Pietersburg and Seshego, Lebowa-Kgomo and Thohoyandu (including Makwarela, Shayandima and Dimasi)

(b) Eastern route from Swaziland and Mozambique:

- Nelspruit, White River, Barberton, Piet Retief, Ermelo and Wesselton, Amersfoort and Daggakraal, Wakkerstroom and Driefontein, Nsikazi (including Kabokweni, KaNyamanzane and Matsulu), Nkomazi (including Schoemansdal, Bosfontein, Kasibenyane, Emangwani and Sibonyeni) and Eerstehoek (including Diepgezet, Heuningklip and Tjakastad)

(c) PWV area:

- Alexandra, Soweto, Dobsonville and Deapmeadow
- East Rand: Tembisa, Ivory Park, Daveyton, Katlehong and Thokoza
- CBD area: Hillbrow, Joubert Park and Berea
- Ennerdale, Lenasia South, Eldorado Park, Riverlea and Bosmont

(d) Pretoria and areas in Bophuthatswana:

- Atteridgeville, Saulsville and Mamelodi
- Soshanguve, Mabopane, GaRankuwa and Winterveldt
- Pretoria CBD, Sunnyside and Arcadia

(e) Durban metropole and nearby:

- Durban CBD
- Ntuzuma, KwaMashu and Umlazi
- St Wendolins and Newton (peri-urban areas), Isipingo and Chatsworth

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[3] (a) to (j) = study domains;
areas listed in respect of every domain = subregions.

(f) KwaZulu:

- Ingwavuma, Nongoma, Hlabisa
- Enseleni, Inkanyezi and Ongoye were substituted by Simdlangentsha and Mahlabatini due to political unrest

(g) Cape Town metropole and nearby areas:

- CBD, Bantry Bay, Camps Bay, Cape Town, Fresnaye, Gardens, Green Point, Mouille Point, Oranjezicht, Sea Point, Three Anchor Bay, Tamboerskloof, Vredehoek and Zonnebloem
- Khayelitsha, Langa, Gugulethu, Nyanga and Crossroads
- Wynberg: Grassy Park, Lotus River, Montagu Gift's, Parkwood, Silvertown, Bridgetown, Heideveld, Athlone and Landsdowne

(h) Eastern Cape and areas in Ciskei:

- Ibhayi, KwaNobhule
- Gompo Town, Mdantsane, Zwelitsha, Phakamiza, Ndevane and Dimbaza
- the CBD of Port Elizabeth, Summerstrand and Humewood and the CBD of East London

(i) Transkei:

- Umtata, Butterworth, Idutya and Tsolo

(j) Orange Free State:

- Mangaung and Botshabelo
- The Free State Goldfields: Thabong and Kutlwanong

3.2.2 Sampling method

The 1991 census information per enumerator area as well as 1989 and 1991 aerial photographs and lists of apartment blocks were used as sampling frames in a stratified multistage sampling method. Prof. Dawie Stoker and Miss Mathilda Barnard of the Centre for Statistics at the HSRC were responsible for the final sampling design. A total of 27 enumerator areas were allocated for each subregion and were proportionally distributed (according to population size) among the different magisterial districts. In each selected enumerator area, eight visiting points were randomly and systematically drawn from maps during fieldwork. For example, in the PWV subregion of Alexandra and Soweto the sampling design was as follows:

Alexandra:	1 formal and 3 informal enumerator areas
Soweto:	15 formal and 1 informal enumerator areas
Dobsonville:	1 formal enumerator area
Deapmeadow:	6 formal enumerator areas
Total:	27 enumerator areas x 8 visiting points each

In areas of high density housing (apartment blocks), 53 apartment blocks were proportionally allocated among the different suburbs according to the number of apartment blocks in each suburb. In each building, four visiting points were randomly and systematically selected during the fieldwork, using the total number of apartments in a building as base. For example, in the Johannesburg CBD subregion, the sampling design was as follows:

CBD	14 apartment blocks
Hillbrow	7 apartment blocks
Joubert Park	6 apartment blocks
Berea	26 apartment blocks
Total	53 apartment blocks x 4 visiting points each

Visiting points were divided to allow for a 50/50 ratio for selection of male and female respondents between the ages of 13 and 60. However, it was not always possible to abide by this rule due to for instance political unrest affecting fieldwork times or the nature of gender ratios in certain survey areas.

The specific respondent was randomly selected at the chosen visiting point by listing people in the age group 13 to 60 according to gender, allocating a number to each of them and then making use of a grid to select the interviewee.

In table 2 the realized sample sizes are given according to study domain, population group and gender.

TABLE 2
STUDY DOMAINS, PLANNED AND REALIZED SAMPLE SIZES

Area	Planned sample size	Realized sample size						
		By population group				By gender		All
		black	white	"coloured"	Asian	Male	Female	
Northern route from Zimbabwe	432	216	211	3	-	215	215	430
Eastern route from Swaziland/Mozambique	432	208	214	-	-	210	212	422
Witwatersrand	864	541	108	27	146	405	417	822
Pretoria and Bophuthatswana	648	421	216	1	31	330	340	670
Durban and surrounding areas	864	453	8	148	253	436	426	862
KwaZulu	216	216	-	-	-	105	111	216
Cape Town	648	216	106	222	-	311	335	646
Eastern Cape - Ciskei	648	434	216	-	2	326	326	652
Transkei	216	208	-	-	-	104	104	208
Orange Free State	432	432	-	-	-	217	215	432
Total	5400	3345	1181	404	430	2659	2701	5360

3.3 Fieldwork

Fieldwork commenced on the 14th day of September 1992 and was completed by the end of November of that year.

Respondents were interviewed after obtaining their consent and were advised of their right to refuse or discontinue participation. They were assured that confidentiality of their answers was guaranteed.

Organizers and interviewers were trained by MarkData of the HSRC, using a standardized training manual. Researchers observed and supervised the training sessions. Male interviewers conducted interviews with male respondents and female interviewers with female interviewees but it was sometimes necessary to deviate from this pattern due to practical, logistic or safety reasons.

Some white respondents in the Northern Transvaal and Eastern Transvaal complained about the sensitive nature of questions on sexual behaviour. In cases where respondents objected to these questions, interviewers asked them to mark their responses to these sections on their own without their having to reply verbally. In the high density areas in the metropoles inhabited by flat dwellers, central security systems sometimes posed access problems. Older white respondents tended to be less interested in AIDS/HIV. The so-called areas of "mixed occupancy" such as the Johannesburg CBD posed security problems for the interview teams - they were exposed to mugging and threats of violence and fieldwork hours had to be restricted to 9:30 until 17:00 daily. Consequently the gender ratio of respondents for these areas was slightly affected. Interviewers also encountered foreigners from Zaire, Kenya, Zimbabwe and Malawi who had difficulty to understand English whereupon the interview team had to elicit the services of volunteer translators and interpreters. Respondents from these areas expressed an interest in obtaining more information on AIDS and the prevention of HIV transmission. Respondents from Hillbrow seemed to be well informed.

No major difficulties were encountered by the interview team in respect of coloured and Asian respondents.

Black respondents in the Northern Transvaal region were suspicious of the presence of whites in the interview team.

Political unrest in the KwaZulu region made access to certain areas very difficult and certain areas had to be substituted. Areas in East London and Ciskei were affected by the Bisho events and the

strained political situation there and in other areas such as parts of Natal, the PWV area and Botshabelo made fieldwork difficult and caused delays in the completion of interviews.

Fieldwork teams brought the following problems to the attention of researchers:

- In some of the urban areas, interviewers encountered a perception among some black respondents that HIV is injected into vegetables and fruits (such as oranges) by farmers in a deliberate attempt to infect black people with the virus.

- Interview teams also reported a notion among some people that AIDS does not really exist. In their fieldwork reports, fieldwork organizers also reported on the high levels of social disruption, political tension, unemployment and poverty in urban black townships.

- As far as the rural areas are concerned, fieldwork organizers reported extreme poverty, a marked absence of a "middle generation" due to people in the 15 to 39 year age group having migrated to urban areas in search of employment, the devastating effect of the drought, poor access routes and suspicion about and fear of "outsiders".

The overall impression was that respondents were generally interested in discussing the subject of AIDS and that they often requested more information. Information material from the AIDS Programme was distributed in the survey areas after the last interview in that particular area had been completed.

Questionnaires were checked, coded and finalized for data capturing at the HSRC building in Pretoria under the supervision of MarkData officials and the research team.

3.4 Analysis of the data

3.4.1 Descriptive statistics

Frequencies of responses to all the questions in the questionnaire are given in Appendix A. Some descriptive tables are also given in the text.

3.4.2 Inferential statistics

According to an agreement with the client, Prof. S.H.C. du Toit of the University of Pretoria and guest researcher at the HSRC acted as chief statistical advisor regarding appropriate statistical

analysis techniques. Inferential statistical analyses were undertaken by the Centre for Statistics at the HSRC.

(a) Optimal scaling

Prof. du Toit recommended the use of the optimal scaling technique for analyzing multivariate categorical data as this proved to be successful in a previous study on knowledge, attitudes and perceptions regarding AIDS among a sample of black high school students (refer to Meyer-Weitz & Steyn 1992).

This technique implies converting categorical variables to real variables in order to allow for statistical processing. The following description of this technique is taken from the work of Meyer-Weitz and Steyn (1992). Optimal scaling involves a dichotomous variable being assigned for every response category of an item. Thus each of the "yes", "no" and "don't know" categories will have a dichotomous variable. Each variable takes the value of 1 if the respondent chose that category and 0 if it was not chosen. Information obtained in this way, is summed up in a contingency table and can be represented graphically by means of correspondence analyses. Co-ordinates from the table are examined and transformed and then used to assign new scaled values to (i.e. digitize) the categories of "yes", "no" and "don't know".

(b) Factor analysis

Based on the findings of Meyer-Weitz and Steyn (1992) as well as the results of the pretest and the theoretical thought behind the role of knowledge, attitudes, perceptions and beliefs as described in part one, certain items were grouped together as factors and tested through factor analysis for correlation between items. Certain items did not form part of a particular factor and had to be considered individually for theoretical and practical purposes.

Factors extracted through the techniques described above, scale values allocated to the categories through the optimal scaling technique, correlation of the new values with the original values, Cronbach's alpha for inter-item correlation and number of cases are given in the table below.

Although the alpha values are low in some instances, this may be the consequence of the small number of items included and does not seriously affect reliability (personal consultation with the Centre for Statistics, HSRC).

TABLE 3
FACTORS, ITEMS AND RELEVANT STATISTICS

FACTORS AND ITEMS	RESULTS OF OPTIMAL SCALING			
KNOWLEDGE OF TRANSMISSION VIA PROVEN MEANS: Subgroup 1 • receiving blood from someone who has the virus • sharing needles with someone who has the virus • vertical transmission from mother to baby • increase risk by having many different sexual partners	Yes = 0,2 No = 3 Don't know = 0 Min = 0 Max = 12	r = 0,997	α = 0,45	N=5360
KNOWLEDGE OF TRANSMISSION VIA PROVEN MEANS: Subgroup 2 • increase risk by having sex while woman is menstruating • transmission through contact with vaginal fluids • transmission through contact with semen	Yes = 0 No = 3 Don't know = 0,5 Min = 0 Max = 9	r = 0,950	α = 0,45	5360
KNOWLEDGE OF TRANSMISSION VIA CASUAL CONTACT • sharing eating utensils • insect bites • coughs, sneezes, spits • taking care of a PWA[4] • perspiration • saliva	Yes = 0 No = 2 Don't know = 3 Min = 0 Max = 18	r = 0,960	α=0,68	5360
KNOWLEDGE OF STDs • preventable through medicine • preventable through injections • preventable through condom use • sufferer at risk for HIV infection	Right = 1 Wrong = 0 Min = 0 Max = 4	r = 0,98	α = 0,43	N=4199
SUBJECTIVE NORM - INFORMATION SOURCES ON AIDS IN PAST MONTH • relatives or family • friends or colleagues • CHW • medical personnel • traditional healer	Yes = 1 No = 0 Min = 0 Max = 5	r = 0,997 (n/a deleted)	α = 0,724	N=4359
ACCEPTABILITY OF MULTIPLE SEXUAL PARTNERS • acceptable for a man to have many sexual partners • acceptable for a woman to have many sexual partners	Yes = 2 No = 0 Don't know = 0,1 Min = 0 Max = 4	r = 0,998	α = 0,780	N=5360

[4] PWA in this report refers to a person or persons with AIDS.

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FACTORS AND ITEMS	RESULTS OF OPTIMAL SCALING			
SUBJECTIVE NORM WILL INFLUENCE CHANGE • friends • family/relatives • nurse • doctor • church leader/minister • printed material	Yes = 1 No = 0 Min = 0 Max = 6 (delete N/A & don't know)	r = 0,996	α = 0,906	N=4236
ACCEPTABILITY CLIMATE • high school children should receive AIDS education • primary school children should receive AIDS education	Yes = 5 No = 0 Don't know = 4 Min = 0 Max = 10	r = 0,957	α = 0,41	N=5360
PERCEPTIONS REGARDING CONDOMS • should not use in sex with casual partner* • sex is less enjoyable • will climb into woman's womb or stomach • will feel ashamed to use • against culture • ashamed to buy • cannot insist on use* • means distrust	Yes = 1 No = 0 Don't know = 0,1 Min = 0 Max = 8	r = 0,980	α = 0,540	N=5360
CONTRACEPTIVE METHOD PERCEPTIONS • pill prevents HIV infection • injection prevents HIV infection	Yes = 2 No = 0 Don't know = 3 Min = 0 Max = 6	r = 0,99	α = 0,88	N=5360
AVAILABILITY PERCEPTIONS REGARDING CONDOMS • are easily available • can get it free of charge • not too expensive*	Yes = 0 No = 1 Don't know = 0,1 Min = 0 Max = 3	r = 0,92	α = 0,36	N=5360
LOCUS OF CONTROL • can prevent illness by looking after one's health • can do something to promote own health • actively try to keep healthy	Yes = 2 No = 0,2 Don't know = 0 Min = 0 Max = 6	r = 0,99	α = 0,44	N=5360

FACTORS AND ITEMS	RESULTS OF OPTIMAL SCALING			
<u>PERCEPTIONS REGARDING SOCIAL DISTANCE</u> • will hide HIV status • other people will avoid PWA • PWA should be isolated • PWA should be blamed for their condition • ashamed of family member who is a PWA • will end friendship with someone who gets infected* • PWA forced to resign • not willing to work with PWA* • not allow HIV positive school children to go to schools with uninfected children* • not allow HIV positive people from other countries to visit South Africa* • not take care of family member with AIDS in own home*	Yes = 2 No = 0 Don't know = 0,1 Min = 0 Max = 22	r = 0,98	σ = 0,75	N=5360
<u>PERCEPTIONS OF SERIOUSNESS OR OF OUTCOME</u> • heard of HIV • believe AIDS exists • a serious threat to community • doctor cannot cure AIDS* • traditional healer cannot cure AIDS* • no vaccine against AIDS* • can be HIV positive and asymptomatic • can infect others when asymptomatic	Yes = 3 No = 2 Don't know = 0 Min = 0 Max = 24	r = 0,998	σ = 0,72	N=5360
<u>KNOWLEDGE OF CORRECT MEANS OF PREVENTION</u> • condom • condom which has been used before • uninfected partners only	Right = 1 Wrong = 0 Min = 0 Max = 3	r = 0,98	σ = 0,44	N=5360

* Direction of question changed to comply with that of other items.

The following independent variables were used:

GENDER	Male	49.6		
	Female	50,4	N = 5360	see Q1
AGE	13-24 years	34,6		
	25-34 years	30,6		
	35-49 years	24,1		
	50 + years	10,7	N = 5360	see Q3
LEVEL OF EDUCATION	None - Std 2	8,0		
	Std 3-5	12,9		
	Std 6-8	33,5		
	Std 9	10,2		
	Std 10	20,9		
	After school (23 refusals deleted)	14,4	N = 5337	see Q4
OCCUPATION	Professional, semi-professional or managerial	11,6		
	Clerical, sales or transport	19,1		
	Service workers	5,3		
	Artisans, apprentices or production workers	24,3		
	Never economically active	39,7	N = 5360	see Q9
LANGUAGE	English	21,8		
	Afrikaans	16,3		
	Nguni	36,4		
	Sotho	9,9		
	Other	15,5	N = 5360	see Q5
POPULATION GROUP	white	22,0		
	Asian	8,0		
	black	62,4		
	"coloured"	7,5	N = 5360	see sampling

AREA	Northern route from Zimbabwe	8,0		
	Eastern route from Swaziland, Mozambique	7,9		
	Witwatersrand	15,3		
	Pretoria, Bophuthatswana and nearby areas	12,5		see sampling
	Natal metropolitan areas	16,1		
	KwaZulu	4,0		
	Cape Town and nearby districts	12,1		
	Eastern Cape metropoles and Ciskei	12,2		
	Transkei	3,9		
	Orange Free State	8,1	N = 5360	
ACCESS TO TELEVISION	Often exposed	55,2		
	Seldom exposed	25,8		
	Never exposed	11,8		
	Not applicable	7,1	N = 5360	see Q73c
ACCESS TO RADIO	Often exposed	57,4		
	Seldom exposed	28,3		
	Never exposed	11,8		
	Not applicable	2,5	N = 5360	see Q73c
ACCESS TO PRINTED MATERIALS* (magazines, newspapers, brochures)	Often exposed	27,0		
	Seldom exposed	31,0		
	Never exposed	39,2		
	Not applicable	2,8	N = 5360	see Q73c
ACCESS TO OTHER INFORMATION SOURCES* (posters, video, film, audio cassettes, advertisements on taxis or buses)	Often exposed	7,4		
	Seldom exposed	13,3		
	Never exposed	76,2		
	Not applicable	3,2	N = 5360	see Q73c

* Coding of groups of sources was done so that the "often" category implies frequent use of the particular sources, the "seldom" category implies that the sources in questions are less often or seldomly used and the "never" category implies that the frequency of use is seldom to not at all.

HAS A SEXUAL PARTNER	Yes	78,4	
	No	21,6	N = 5349
	(11 refusals deleted)		

(c) Variance analysis

A multivariate variance analysis (MANOVA) was carried out, using the PROC GLM procedure in the SAS package, was carried out to compare means and make inferences regarding significant differences in respect of predictor variables for the factors described above.

Apart from observing the effect of the independent variables on the factors, an ANOVA (univariate variance analysis) was carried out in respect of each total score to determine which of the independent variables contributed to significant effects.

(d) Regression analysis

Multiple regression analyses were carried out in respect of each of the following behaviour-type items:

- **CONDOM USE IN THE LAST 3 MONTHS BY ALL RESPONDENTS WITH A SEXUAL PARTNER**
- **CONDOM USE DURING SEX WITH A CASUAL PARTNER**
- **INDICATED BEHAVIOUR CHANGE AFTER LEARNING FACTS ABOUT AIDS**

and in respect of other aspects such as:

- **PERCEPTIONS OF AIDS AS A GAY DISEASE**

The same independent variables or predictor variables as described in (c) above were used in the regression analyses to measure the partial influence of each on the dependent variable (some additions were made in respect of certain analyses, but these are described in the text). The SAS package PROC GLM was used.

4. FINDINGS

4.1 Background characteristics of the sample population

Pages 1 to 4 in Appendix A give the frequency tables for the major background characteristics of the sample population. Some of these variables are also given in the graphs below.

4.2 Perceptions of community problems

Most respondents indicated problems of a socio-economic nature (poverty, infrastructural problems), violence and crime to be areas of greatest concern as far as problems facing their communities were concerned (see Q10 in Appendix A). It also seems that AIDS was not identified as a major concern for most - in fact other health problems, such as tuberculosis, were identified more frequently as a problem than AIDS.

4.3 Knowledge of HIV, AIDS and related aspects

4.3.1 Knowledge of HIV transmission via proven means

Almost all respondents (83 %) knew that HIV can be transmitted by sexual intercourse with an infected partner (see Q18 in Appendix A). Other questions aimed at measuring respondents' level of knowledge of HIV, AIDS and related aspects were reduced to a few factors.

The first knowledge factor is a combination of items relating to levels of knowledge about HIV transmission via proven means. Items included in this field are listed in Table 3(a). A total score was calculated through applying an optimal scaling technique. A high score for this factor implies poor knowledge regarding proven means of HIV transmission.

As can be seen in Table 4, four independent variables, namely gender, population group, study area and access to television, proved to be significant in respect of observed variance in scores for knowledge via proven means. The Duncan analysis carried out in respect of these four variables is given in Table 5. (See Appendix B, Figure B.1 and B.2.)

FIGURE 5: GENDER BY POPULATION GROUP

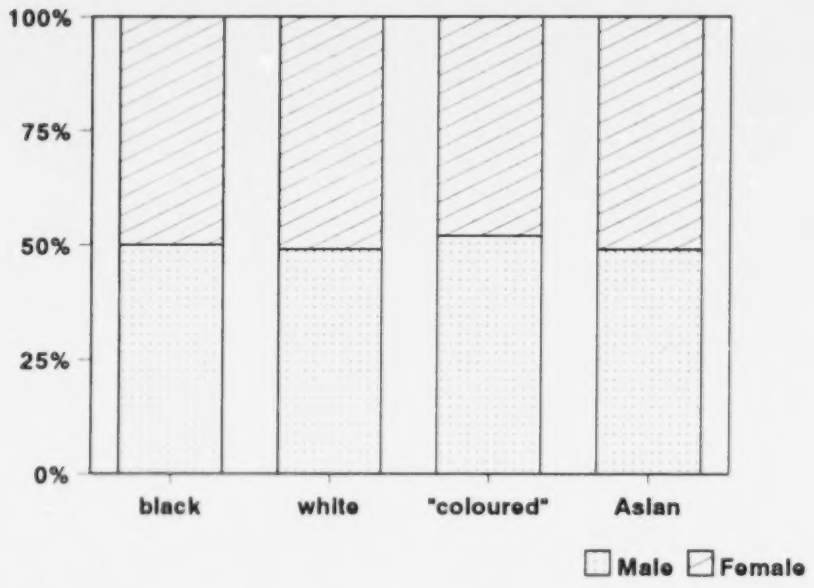


FIGURE 6: AGE GROUP DISTRIBUTION

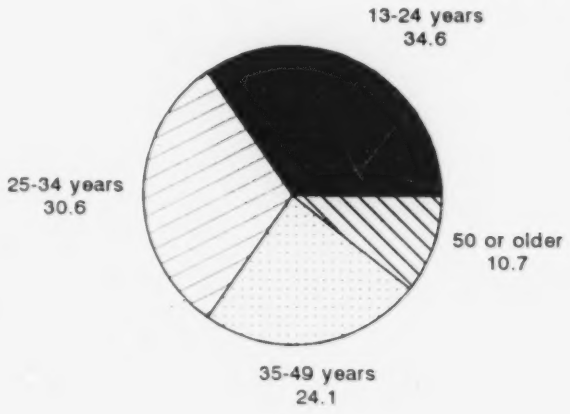
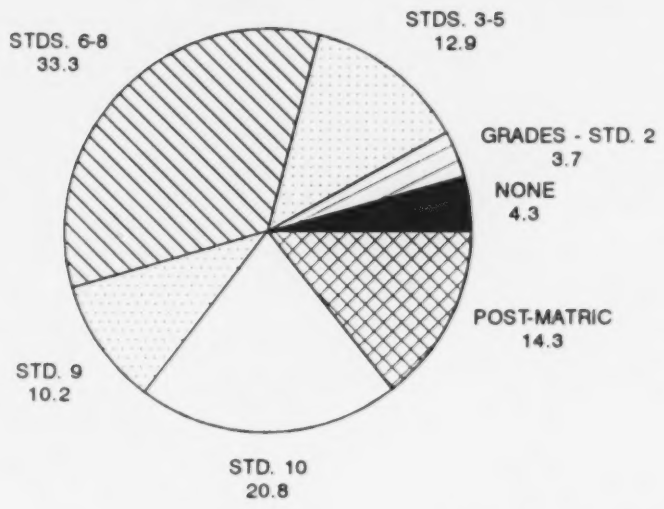


FIGURE 7: EDUCATIONAL LEVEL DISTRIBUTION



(0,4 % REFUSED AN ANSWER)

FIGURE 8: RESPONDENTS WHO CAN UNDERSTAND AND READ ENGLISH BY POPULATION GROUP

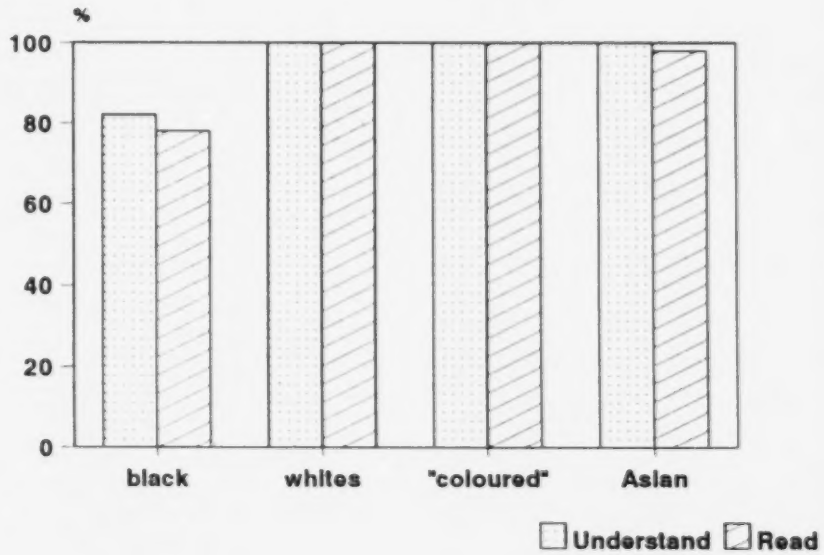


FIGURE 9: EMPLOYMENT STATUS BY POPULATION GROUP

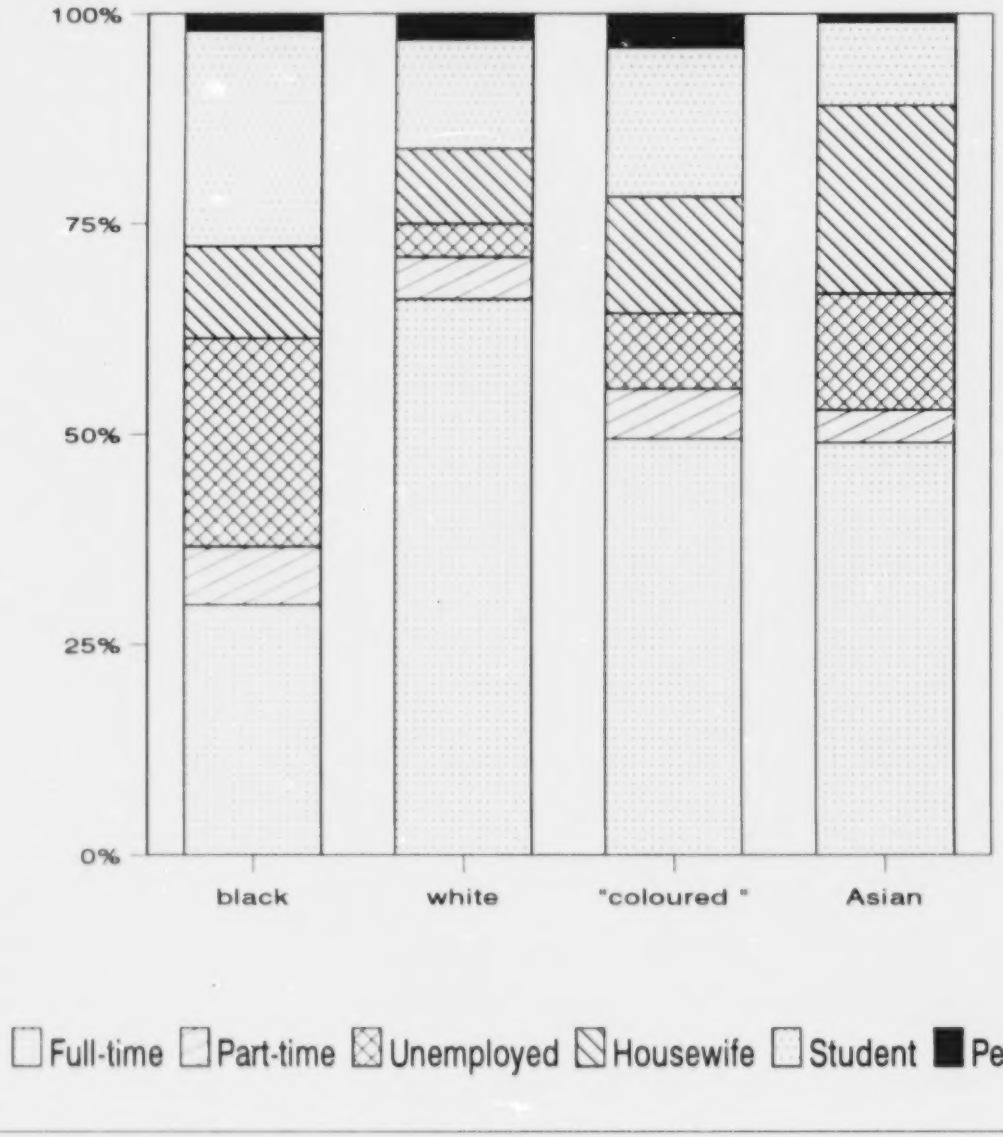


TABLE 4
ANALYSIS OF VARIANCE OF KNOWLEDGE OF HIV TRANSMISSION VIA PROVEN MEANS, SUBGROUP 1

SOURCE OF VARIATION	F-VALUE	DEGREES OF FREEDOM	P-VALUE	NUMBER OF CASES
Gender	5,69	1	0,0171*	5326
Age group	0,87	3	0,4573	5326
Educational level	0,93	5	0,4574	5326
Occupation	2,29	4	0,0576	5326
Home language	1,34	4	0,2533	5326
Population group	7,37	9	0,0007*	5326
Study domain (area)	3,21	9	0,0007*	5326
Access to television	4,83	3	0,0023*	5326
Access to radio	1,34	3	0,2598	5326
Access to printed material	0,31	3	0,8201	5326
Access to other sources	1,16	3	0,3222	5326
Has a sexual partner	2,25	1	0,1333	5326

* Level of significance is 5 %.

TABLE 5
DUNCAN STATISTICS FOR SIGNIFICANT VARIABLES FROM THE VARIANCE ANALYSIS FOR KNOWLEDGE OF HIV-TRANSMISSION VIA PROVEN MEANS, SUBGROUP 1

VARIABLE AND LEVELS	MEAN	DUNCAN GROUPING	NUMBER OF CASES
Gender			
male	1,23973	A	2643
female	1,16064	A	2683
Population group			
white	0,89515	B	1175
Asian	1,04848	B	429
black	1,35729	A	3320
"coloured"	0,95224	B	402

Area			
Northern route from Zimbabwe	1,14118	B	425
Eastern route from Swaziland/Mozambique	1,21524	B	420
Witwatersrand	1,21198	B	818
Pretoria, Bophuthatswana and nearby districts	1,22195	B	665
Natal metropolitan areas	1,24382	B	858
KwaZulu	1,22698	B	215
Cape Town and nearby districts	0,98596	B	641
Eastern Cape metropoles and Ciskei	1,01728	B	648
Transkei	1,21731	B	208
Orange Free State	1,67243	A	428
Access to television			
Often exposed	1,15610	BC	2943
Seldom exposed	1,22242	B	1374
Never exposed	1,47389	A	628
Not applicable	1,00525	C	381

0 = All don't know | 0,8 = All correct answers | 12 = All incorrect answers

Means with the same alphabetic letter do not differ statistically from one another.

The mean scores in Table 5 indicate that knowledge regarding proven means (Subgroup 1) was average to high, but significant differences in respect of knowledge did occur. In the first place, it seems that black respondents had significantly fewer correct answers in respect of these knowledge items than other population groups and that blacks in the Orange Free State (remember: only a sample among blacks here) were especially ill informed. Frequency of access to a television significantly increased levels of knowledge about HIV transmission as far as these particular knowledge items were concerned.

Some other items relating to HIV transmission via proven means formed a separate factor which includes three items which specifically deals with HIV transmission during sexual intercourse (see Table 3(b)).

ANOVA results for this factor can be seen in Table 6. In this analysis, the home language of respondents, their population group, area of residence and frequency of access to the radio as source of information on HIV, AIDS and related aspects proved to be significant variables and the Duncan analysis in respect of these variables is given in Table 7. Once again, a higher mean score indicates a lower level of correct knowledge. For the knowledge items dealing with transmission via proven means during sexual intercourse, the mean scores in general indicated average knowledge with specific shortcomings in respect of the levels of knowledge of certain subgroups.

Sotho speaking respondents were least informed about the facts concerning transmission of HIV during sexual intercourse, while levels of knowledge amongst English, Afrikaans and Nguni speaking individuals were significantly higher. According to the analysis of means in the area variable, people living in KwaZulu were (significantly) the best informed of the correct facts concerning HIV transmission during sexual intercourse. Overall however, blacks and Asians were the least able to give correct answers to these knowledge items while "coloured" people were more inclined to give correct answers.

As in the previous analysis of knowledge concerning HIV transmission, access to a particular source of information (in this instance frequency of access to a radio) was a significant variable. However, the Duncan analysis did not detect a significant increase or decrease in knowledge according to frequency of access.

TABLE 6
ANALYSIS OF VARIANCE OF KNOWLEDGE OF HIV TRANSMISSION VIA PROVEN MEANS, SUBGROUP 2

SOURCE OF VARIATION	F-VALUE	DEGREES OF FREEDOM	P-VALUE	NUMBER OF CASES
Gender	0,28	1	0,5939	5326
Age group	1,11	3	0,3437	5326
Educational level	1,24	5	0,2887	5326
Occupation	2,19	4	0,0675	5326
Home language	6,03	4	0,0001*	5326
Population group	5,41	3	0,0010*	5326
Study domain (area)	23,56	9	0,0001*	5326
Access to television	0,24	3	0,8698	5326
Access to radio	6,65	3	0,0002*	5326
Access to printed material	0,50	3	0,6829	5326
Access to other sources	0,24	3	0,8691	5326
Has a sexual partner	0,22	1	0,6397	5326

* Level of significance is 5 %.

TABLE 7
DUNCAN STATISTICS FOR SIGNIFICANT VARIABLES FROM THE VARIANCE ANALYSIS OF KNOWLEDGE OF HIV TRANSMISSION VIA PROVEN MEANS, SUBGROUP 2

VARIABLE AND LEVELS	MEAN	DUNCAN GROUPING	NUMBER OF CASES
Language			
English	1,31916	C	1164
Afrikaans	1,57771	C	875
Nguni	1,44327	C	1939
Sotho	2,82386	A	528
Other	1,86829	B	820
Population group			
white	1,4157	BC	1175
Asian	1,6410	BA	429
black	1,7789	A	3320
coloured	1,1542	C	402
Area			
Northern route from Zimbabwe	2,4953	A	425
Eastern route from Swaziland/Mozambique	1,7083	B	420
Witwatersrand	2,2366	A	818
Pretoria, Bophuthatswana and nearby districts	2,3038	A	665
Natal metropolitan areas	1,3362	CB	858
KwaZulu	0,9093	D	215
Cape Town and nearby districts	1,0710	CD	641
Eastern Cape metropoles and Ciskei	1,0671	CD	648
Transkei	1,1154	CD	208
Orange Free State	1,5093	B	428
Access to radio			
Often exposed	1,5971	A	3058
Seldom exposed	1,6524	A	1506
Never exposed	1,8160	A	633
Not applicable	1,6705	A	129

0 = Correct knowledge 1,5 = Uninformed 9 = Incorrect knowledge

Means with the same alphabetical letter do not differ statistically from one another.

4.3.2 Knowledge of HIV transmission via casual contact

Knowledge of HIV transmission via casual contact was measured in Questions 19, 22, 25, 26 and parts of 28 (see Appendix A for descriptive statistics). Results of the ANOVA analysis and for the Duncan statistics can be seen in Tables 8 and 9 respectively.

TABLE 8
ANALYSIS OF VARIANCE OF KNOWLEDGE OF HIV TRANSMISSION VIA CASUAL CONTACT

SOURCE OF VARIATION	F-VALUE	DEGREES OF FREEDOM	P-VALUE	NUMBER OF CASES
Gender	1,49	1	0,2215	5326
Age group	1,53	3	0,2036	5326
Educational level	8,79	5	0,0001*	5326
Occupation	2,14	4	0,0731	5326
Home language	2,20	4	0,0668	5326
Population group	9,34	3	0,0001*	5326
Study domain (area)	23,25	9	0,0001*	5326
Access to television	1,64	3	0,1773	5326
Access to radio	0,95	3	0,4158	5326
Access to printed material	1,74	3	0,1560	5326
Access to other sources	0,25	3	0,8589	5326
Has a sexual partner	8,20	1	0,0042*	5326

* Level of significance is 5 %.

TABLE 9
DUNCAN STATISTICS FOR SIGNIFICANT VARIABLES FROM THE VARIANCE ANALYSIS OF KNOWLEDGE OF HIV TRANSMISSION VIA CASUAL CONTACT

VARIABLE AND LEVELS	MEAN	DUNCAN GROUPING	NUMBER OF CASES
Educational level			
none - std 2	9,0748	C	428
stds 3-5	8,9403	C	687
stds 6-8	9,6553	B	1784
std 9	10,0788	B	546
std 10	10,8241	A	1114
after school	10,9752	A	767
Population group			
white	11,2698	A	1175
Asian	10,4545	B	429
black	9,3401	C	3320
coloured	11,1791	A	402

Area			
Northern route from Zimbabwe	10,1012	CD	425
Eastern route from Swaziland/Mozambique	9,5571	DE	420
Witwatersrand	10,2176	CB	818
Pretoria, Bophuthatswana and nearby districts			
Natal metropolitan areas	10,2632	CB	665
KwaZulu	9,8368	CDE	858
Cape Town and nearby districts	12,2698	A	215
Eastern Cape metropoles and Ciskei	10,7941	B	641
Transkei	9,1605	FG	648
Orange Free State	8,8750	G	208
	9,2547	FGE	428
Has a sexual partner?			
Yes	9,8511	B	4 178
No	10,5157	A	1 148

0 = Incorrect knowledge 12 = Correct knowledge 18 = Don't know

Means with the same alphabetical letter do not differ statistically from one another.

In this case, the optimal scaling was undertaken in such a way that it resulted in a mean score closer to 12, indicating a higher degree of knowledge. Level of education, population group, area and exposure to sexual contact played a statistically significant role.

The analysis seems to indicate that respondents were confused about the correct facts concerning HIV transmission via casual contact. Respondents with higher educational levels (Std. 10 or higher) tended to give significantly more correct answers. Black and Asian respondents were significantly less informed than coloured and white respondents. Respondents from KwaZulu gave significantly more correct answers, with respondents from Transkei being the least informed. Respondents without a sexual partner were slightly better informed than those with partners. (See Appendix B, Figure B.3.)

4.3.3 Responses to unstructured questions on HIV transmission

Question 17 required of respondents to give their own opinions of how HIV is transmitted from one person to the next. The majority of respondents were able to give an answer (95 % of the total sample) and 28 % were able to give more than one answer. Modes of transmission mentioned most frequently were sex with many casual partners (90 %) and contact with contaminated blood or blood products (22 %). Spontaneous mention of mother-to-child transmission was low.

4.3.4 Knowledge of STDs

More than a third (48 %) of the respondents had heard of sexually transmitted diseases (see Q29 in Appendix A). In order to determine what this group actually knew about STDs, a few follow-up questions were asked (see Q30 and Q31 in Appendix A). For purposes of analysis, a point was allocated for a correct answer given and a score of zero for an incorrect response. Thus a minimum of 0 and a maximum of 4 points could be obtained in a total score for correct knowledge about STDs.

According to the ANOVA analysis in Table 10, the variables language, population group, area and access to a radio played a statistically significant role.

TABLE 10
ANALYSIS OF VARIANCE OF KNOWLEDGE OF STDs

SOURCE OF VARIATION	F-VALUE	DEGREES OF FREEDOM	P-VALUE	NUMBER OF CASES
Gender	1,01	1	0,3156	4173
Age group	1,75	3	0,1539	4173
Educational level	1,73	5	0,1231	4173
Occupation	2,11	4	0,0775	4173
Home language	5,73	4	0,0001*	4173
Population group	10,1	3	0,0001*	4173
Study domain (area)	23,03	9	0,0001*	4173
Access to television	1,82	3	0,1418	4173
Access to radio	6,98	3	0,0001*	4173
Access to printed material	2,53	3	0,2687	4173
Access to other sources	2,53	3	0,0554	4173
Has a sexual partner	3,56	1	0,0593	4173

* Level of significance is 5 %.

TABLE 11
DUNCAN STATISTICS FOR SIGNIFICANT VARIABLES FROM THE VARIANCE ANALYSIS OF KNOWLEDGE OF STDs

VARIABLE AND LEVELS	MEAN	DUNCAN GROUPING	NUMBER OF CASES
Language			
English	2,34694	BA	1078
Afrikaans	2,43330	A	780
Nguni	2,00995	D	1407
Sotho	2,16273	C	381
Other	2,21822	C	527
Population group			
white	2,53224	A	1101
Asian	2,13067	B	375
black	2,08527	B	2322
coloured	2,18667	B	875
Area			
Northern route from Zimbabwe	2,39888	B	356
Eastern route from Swaziland/Mozambique	2,27445	CB	317
Witwatersrand	2,09541	C	566
Pretoria, Bophuthatswana and nearby districts	2,38241	B	557
Natal metropolitan areas	2,09402	C	702
KwaZulu	3,14966	A	147
Cape Town and nearby districts	2,25773	CB	582
Eastern Cape metropoles and Ciskei	2,15101	C	543
Transkei	1,54248	D	153
Orange Free State	2,04000	C	250

0 = All incorrect answers 4 = All correct answers

Means with the same alphabetical letter do not differ statistically from one another.

In general, mean scores were average, indicating low to average levels of knowledge about STDs.

According to the Duncan analysis, Nguni-speaking respondents were significantly less informed about STDs than the other groups. Overall, white respondents and respondents from KwaZulu respectively were better informed about these issues. Respondents from Transkei were least able to give correct answers to the questions regarding STDs. (See Appendix B, Figure B.4.)

4.3.5 Knowledge of prevention of HIV infection

(i) Knowledge of correct means of protection

As in the case of knowledge of STDs, answers to Questions 57, 60 and 61 were allocated one

point for a correct and zero for an incorrect responses whereupon a mean score was calculated. The age group of respondents, their educational level, population group and area of residence, access to information sources such as the radio, printed media and other sources as well as involvement with a sexual partner all played significant roles (see Table 12).

According to Table 13, the older age group (i.e. 50 years and older) had a slightly although significantly lower score of correct answers regarding means of prevention. Respondents with post-matric qualifications had the highest score, followed by those with standard nine or matric qualifications and then by those with standard six to eight while the two lowest educational levels scored lowest and significantly lower than the previous group. It seems that whites were significantly better informed than the other population groups. Respondents from the Transkei area were particularly ill informed about means of effective prevention. Although access to the printed media, radio and other sources was significant, no clear pattern emerged from the Duncan analysis. Those respondents who had a sexual partner scored significantly higher than those who did not have a partner. (See Appendix B, Figure B.5.)

TABLE 12
ANALYSIS OF VARIANCE OF KNOWLEDGE OF PREVENTION OF HIV INFECTION: CORRECT KNOWLEDGE

SOURCE OF VARIATION	F-VALUE	DEGREES OF FREEDOM	P-VALUE	NUMBER OF CASES
Gender	0,91	1	0,3407	5326
Age group	3,13	3	0,0246*	5326
Educational level	13,90	5	0,0001*	5326
Occupation	0,87	4	0,4803	5326
Home language	0,14	4	0,9675	5326
Population group	7,64	3	0,0001*	5326
Study domain (area)	5,17	9	0,0001*	5326
Access to television	1,72	3	0,1611	5326
Access to radio	2,79	3	0,0390*	5326
Access to printed material	3,52	3	0,0144*	5326
Access to other sources	2,75	3	0,0411*	5326
Has a sexual partner	31,03	1	0,0001*	5326

* Significant at 5 % level.

TABLE 13
DUNCAN STATISTICS FOR SIGNIFICANT VARIABLES FROM THE VARIANCE ANALYSIS OF KNOWLEDGE OF PREVENTION OF HIV INFECTION: CORRECT KNOWLEDGE

VARIABLE AND LEVELS	MEAN	DUNCAN GROUPING	NUMBER OF CASES
Age			
13-24	2,15852	A	1842
25-34	2,17892	A	1632
35-49	2,13442	A	1287
50 and older	2,01062	B	565
Educational level			
none - std 2	1,75234	E	428
stds 3-5	1,96507	D	687
stds 6-8	2,08464	C	1784
std 9	2,21245	B	546
std 10	2,28546	B	1114
after school	2,40156	A	767
Population group			
white	2,39574	A	1175
Asian	2,06527	B	429
black	2,06416	B	3320
coloured	2,14179	B	402
Area			
Northern route from Zimbabwe	2,21176	BAC	425
Eastern route from Swaziland/Mozambique	2,12143	CD	420
Witwatersrand	2,10880	CD	818
Pretoria, Bophuthatswana and nearby districts	2,26316	BA	665
Natal metropolitan areas	2,08275	CD	858
KwaZulu	2,06047	CD	215
Cape Town and nearby districts	2,16537	BAC	641
Eastern Cape metropoles and Ciskei	2,30093	A	648
Transkei	1,85096	E	208
Orange Free State	2,00935	D	428
Access to radio			
Often exposed	2,16351	A	3058
Seldom exposed	2,15538	A	1506
Never exposed	2,05055	AB	633
Not applicable	1,97674	B	129
Access to printed media			
Often exposed	2,21319	A	
Seldom exposed	2,23301	A	
Never exposed	2,06032	B	
Not applicable	1,63756	C	
Access to other sources			
Often exposed	2,05357	B	392
Seldom exposed	2,21358	A	707
Never exposed	2,15402	AB	4058
Not applicable	1,79882	C	169

VARIABLE AND LEVELS	MEAN	DUNCAN GROUPING	NUMBER OF CASES
Has a sexual partner			
Yes	2,17018	A	4178
No	2,04530	B	1148

0 = All incorrect answers 3 = All correct answers

Means with the same alphabetical letter do not differ statistically from one another.

(ii) Knowledge of inappropriate means of protection against HIV infection

Knowledge regarding the inability of contraceptive methods such as the contraceptive pill and the injection to provide protection against HIV infection was measured by Questions 58 and 59. Correct answers were allocated one point and incorrect responses zero so that a score of 3 would indicate that all answers regarding inappropriate prevention through non-barrier methods were correct. Variables, which according to the variance analysis have a significant influence (at 5 % level of significance) on differential levels of knowledge about non-barrier methods as inappropriate means of protection against HIV infection, are indicated with an asterisk in Table 14.

From the Duncan analysis presented in Table 15 it can be seen that men were less informed than women about these issues. There seem to be a slight but significant increase in knowledge that the pill and injection cannot provide protection against HIV infection with an increase in educational level. Afrikaans- and English-speaking respondents were more informed while black people as a group were less informed. Areas where misconceptions about the ability of these methods to provide protection against HIV transmission were significantly more prevalent, were: KwaZulu, Transkei and the Orange Free State. The Duncan analysis did not reveal a significant difference according to level of exposure to the radio as source of information, but respondents who had some level of contact with printed media were significantly more informed than those with no contact with this medium. Those respondents who had a sexual partner were slightly but significantly more informed.

TABLE 14
ANALYSIS OR VARIANCE OF INCORRECT MEANS OF PROTECTION AGAINST HIV INFECTION

SOURCE OF VARIATION	F-VALUE	DEGREES OF FREEDOM	P-VALUE	NUMBER OF CASES
Gender	91,78	1	0,0001*	5326
Age group	1,06	3	0,3627	5326
Educational level	15,74	5	0,0001*	5326
Occupation	1,62	4	0,1650	5326
Home language	5,61	4	0,0002*	5326
Population group	7,14	3	0,0001*	5326
Study domain (area)	4,66	9	0,0001*	5326
Access to television	1,79	3	0,1468	5326
Access to radio	3,60	3	0,0128*	5326
Access to printed material	8,80	3	0,0001*	5326
Access to other sources	2,47	3	0,0604	5326
Has a sexual partner	19,41	1	0,0001*	5326

* Level of significance is 5 %.

TABLE 15
DUNCAN STATISTICS FOR SIGNIFICANT VARIABLES FROM THE VARIANCE ANALYSIS OF INCORRECT MEANS OF PROTECTION AGAINST HIV INFECTION

VARIABLE AND LEVELS	MEAN	DUNCAN GROUPING	NUMBER OF CASES
Gender			
male	1,43549	A	2643
female	0,98994	B	2683
Educational level			
none - std 2	2,4042	A	428
stds 3-5	1,9229	B	687
stds 6-8	1,2853	C	1784
std 9	1,1740	C	546
std 10	0,7379	D	1114
after school	0,4485	E	767

VARIABLE AND LEVELS	MEAN	DUNCAN GROUPING	NUMBER OF CASES
Language			
English	0,70876	C	1164
Afrikaans	0,67657	C	875
Nguni	1,68644	A	1939
Sotho	1,00568	B	528
Other	1,50244	A	820
Population group			
white	0,4196	C	1175
Asian	1,0769	B	429
black	1,5434	A	3320
coloured	0,9229	B	402
Area			
Northern route from Zimbabwe	0,6141	C	425
Eastern route from Swaziland/Mozambique	1,0595	B	420
Witwatersrand	1,2347	B	818
Pretoria, Bophuthatswana and nearby districts	0,8902	BC	665
Natal metropolitan areas	1,2098	B	858
KwaZulu	2,0372	A	215
Cape Town and nearby districts	1,0874	B	641
Eastern Cape metropoles and Ciskei	1,0941	B	648
Transkei	2,0048	A	208
Orange Free State	1,9696	A	428
Access to radio			
Often exposed	1,1426	A	3058
Seldom exposed	1,2205	A	1506
Never exposed	1,4913	A	633
Not applicable	1,3488	A	129
Access to printed material			
Often exposed	0,8389	C	1440
Seldom exposed	0,9163	C	1648
Never exposed	1,5917	B	2089
Not applicable	2,7315	A	149
Has a sexual partner			
Yes	1,16132	B	4178
No	1,39199	A	4178

0 = All correct answers 4 = All incorrect answers 6 = All don't know

Means with the same alphabetical letter do not differ statistically from one another.

(iii) Spontaneous suggestions by respondents on how to protect oneself against HIV transmission

At Question 32 of the questionnaire (Appendix A), respondents were probed for their perceptions of how to protect oneself against HIV transmission. Most respondents were able to give an answer and some offered up to three possible protection strategies. The majority of respondents indicated one-partner relationships (59 %) as being the best means of protection, with condom use (38 %) being a close second. However, inappropriate means of protection were also indicated, such as "living clean", use of non-barrier contraceptive methods, visiting clinics, doctors, traditional healers or going for regular medical check-ups, not sharing utensils, being religious and avoiding sexual contact which is not heterosexual.

The proportions of respondents who indicated at least one inappropriate means of protection are given in Table 16 according to the variables which were proven to be of significance in the analysis of the two factors relating to knowledge of protection described in the previous few pages. Approximately one in every 14 respondents indicated at least one inappropriate means of protection and the tendency to report inappropriate means was greater among lower educational levels, black respondents, residents of the Northern-route area, the Witwatersrand and Transkei and those who were less frequently exposed to printed material. (See Appendix B, Figure B.6.)

TABLE 16
PERCENTAGE RESPONDENTS WHO INDICATED AT LEAST ONE INAPPROPRIATE MEANS OF PROTECTION AGAINST HIV INFECTION

VARIABLE AND LEVELS	PER CENT WHO GAVE AT LEAST 1 INAPPROPRIATE ANSWER	CHI-SQUARE STATISTICS	NUMBER OF CASES
Total sample	7,4	-	5360
Educational level			
none - std 2	9,1		428
stds 3 - 5	10,6		690
stds 6 - 8	7,9	X^2 = 23,83	1787
std 9	4,6	df = 5	547
std 10	5,7	p = 0,000*	1116
after school	6,9	N = 5337	769
Population group			
white	6,6	X^2 = 10,72	1181
Asian	4,2	df = 3	430
black	8,2	p = 0,013*	3345
"coloured"	6,8	N = 5360	404

VARIABLE AND LEVELS	PER CENT WHO GAVE AT LEAST 1 INAPPROPRIATE ANSWER	CHI-SQUARE STATISTICS	NUMBER OF CASES
Area			
Northern route	9,3		430
Eastern route	7,1		422
Witwatersrand	9,3	X^2 = 18,83	822
Pretoria +	8,5	df = 9	670
Natal +	6,7	p = 0,027*	862
KwaZulu +	2,8	N = 5360	216
Cape Town +	6,2		646
Eastern Cape +	6,8		652
Transkei	9,1		208
OFS	6,0		432
Access to radio			
often	6,9		3076
seldom	7,7	X^2 = 3,663	1517
never	8,5	df = 3	635
n/a	9,9	p = 0,300	132
Access to printed materials			
often			
seldom	5,9	X^2 = 10,274	1448
never	7,0	df = 3	1660
n/a	8,5	p = 0,016*	2103
	10,1	N = 5360	149
Has a sexual partner?		X^2 = 2,185	
Yes		df = 1	
No	7,1	p = 0,139	4196
	8,4	$-\phi$ = 0,020	1153
		N = 5349	

* Significant at 5 % level.

4.4 Perceptions of AIDS-related aspects

4.4.1 Perceptions of the seriousness or of the outcome of HIV infection and AIDS

Respondents' perceptions regarding the seriousness of HIV infection or the probable outcome of the infection and of AIDS were measured by Questions 11, 12, 13, 14, 15, 16, 34 and 35 (see Appendix A and Table 3). Optimal scaling was used to assign new values, and mean scores were calculated. A mean score between 16 and 24 indicates a realistic perception of seriousness. Overall, respondents seems to have been aware of the seriousness of the possible outcome of HIV infection.

Many variables had a significant effect on these perceptions (see Table 17). It seems that the younger age groups (i.e. between 13 and 49 years) were slightly but significantly more aware of the seriousness of AIDS than those in their fifties or older. Perceptions of seriousness were significantly more intense in higher educational levels, with those with the lowest levels of education being dangerously unaware of the seriousness and grave outcome of HIV infection and AIDS. Nguni-speaking and "other" language groups were slightly but significantly less aware of the seriousness of HIV and AIDS than English-, Afrikaans- or Sotho-speaking respondents. Black people as a group were slightly but significantly less informed. In respect of the area variable, small differences in mean scores were found, though it seems that respondents living in Transkei, the Orange Free State, KwaZulu and the Witwatersrand were the least informed about the serious threat of AIDS. Frequency of exposure to the television as source of information seems to have increased perceptions of seriousness significantly as did - to a lesser extent - access to the radio and printed media. (See Appendix B, Figure B.7.)

TABLE 17
ANALYSIS OF VARIANCE OF PERCEPTIONS OF SERIOUSNESS OR OF THE OUTCOME OF HIV INFECTION AND AIDS

SOURCE OF VARIATION	F-VALUE	DEGREES OF FREEDOM	P-VALUE	NUMBER OF CASES
Gender	0,25	1	0,6193	5326
Age group	5,04	3	0,0017*	5326
Educational level	18,48	5	0,0001*	5326
Occupation	0,80	4	0,5226	5326
Home language	5,65	4	0,0002*	5326
Population group	11,87	3	0,0001*	5326
Study domain (area)	7,45	9	0,0001*	5326
Access to television	11,60	3	0,0001*	5326
Access to radio	6,92	3	0,0001*	5326
Access to printed material	7,66	3	0,0001*	5326
Access to other sources	8,56	3	0,0001*	5326
Has a sexual partner	5,93	1	0,0149*	5326

* Level of significance is 5 %.

TABLE 18
DUNCAN STATISTICS FOR SIGNIFICANT VARIABLES FROM THE VARIANCE ANALYSIS OF PERCEPTIONS OF THE SERIOUSNESS OR OF THE OUTCOME OF HIV INFECTION AND AIDS

VARIABLE AND LEVELS	MEAN	DUNCAN GROUPING	NUMBER OF CASES
Age			
13-24	20,4283	A	1842
25-34	20,3885	A	1632
35-49	20,0093	A	1287
50 and older	19,5398	B	565
Educational level			
none - std 2	17,0631	F	428
stds 3-5	18,6070	E	687
stds 6-8	19,8240	D	1784
std 9	20,5147	C	546
std 10	21,4461	B	1114
after school	22,3611	A	767
Language			
English	21,8574	A	1164
Afrikaans	21,8617	A	875
Nguni	19,0536	C	1939
Sotho	20,0398	B	528
Other	19,0220	C	820
Population group			
white	22,5643	A	1175
Asian	20,8508	B	429
black	19,1946	C	3320
"coloured"	21,1716	B	402
Area			
Northern route from Zimbabwe	21,6188	A	425
Eastern route from Swaziland/Mozambique	20,9024	AB	420
Witwatersrand	19,8289	D	818
Pretoria, Bophuthatswana and nearby districts	20,8436	B	665
Natal metropolitan areas	20,0699	DC	858
KwaZulu	18,9023	E	215
Cape Town and nearby districts	21,1810	AB	641
Eastern Cape metropoles and Ciskei	20,6204	BC	648
Transkei	18,2548	EF	208
Orange Free State	17,8201	F	428
Access to television			
Often exposed	20,9823	A	2943
Seldom exposed	20,1805	B	1374
Never exposed	18,2675	C	628
Not applicable	17,7008	D	381

VARIABLE AND LEVELS	MEAN	DUNCAN GROUPING	NUMBER OF CASES
Access to radio			
Often exposed	20,3617	A	3058
Seldom exposed	20,2888	AB	1506
Never exposed	19,5087	C	633
Not applicable	19,5736	BC	129
Access to printed material			
Often exposed	21,0708	A	1440
Seldom exposed	21,0619	A	1648
Never exposed	19,2863	B	2089
Not applicable	15,7987	C	149
Access to other sources			
Often exposed	20,5689	A	392
Seldom exposed	20,8798	A	707
Never exposed	20,2422	A	4058
Not applicable	16,1361	B	169
Has a sexual partner			
Yes	20,1987	A	4178
No	20,3005	A	1148

0 = Don't know | 16 = Weak comprehension of seriousness | 24 = Strong, realistic perception of seriousness

Means with the same alphabetical letter do not differ statistically from one another.

(i) Spontaneous responses to queries as to what will happen to a person who has contracted HIV

At Question 33 in the questionnaire, respondents were prompted to give spontaneous answers as to what the fate of a person who had contracted HIV would be. Only 5 % of the total sample of 5 360 respondents were not unable to give an answer. Most frequently mentioned outcomes of HIV infection were death (86 %), followed by a description of symptoms of AIDS and general descriptions of illness. In relation to the above-mentioned analysis of the factor describing perceptions of seriousness of outcome the high proportional mention of death as outcome of HIV infection cannot be seen as a positive finding *per se*, since the quantitative measure's analysis revealed subgroup differences. In this respect it should be kept in mind that seeing HIV infection as inevitably or immediately leading to death, puts it at a distance and undermines realistic perceptions about the infectious state of asymptomatic infected people, the slow progression of symptoms, the need for care, the ability of HIV infected individuals to participate in normal activities for a long period of time etc.

4.2.2 Perceptions regarding the use of condoms

(i) Perceptions regarding the acceptability of condom use

Items included in the first factor relating to perceptions regarding condoms were measured in Questions 62, 63, 64, 65, 66, 70, 71 and 72 (see Appendix A). Once again, optimal scaling was used to reassign values for the three categories, and mean scores were calculated.

The ANOVA indicated quite a few variables as significantly contributing to variance in this factor (see Table 19). Significantly more positive perceptions regarding the use of condoms occurred among women, people with higher educational levels, those with professional, semi-professional, managerial, clerical or sales occupations, English- and Afrikaans-speaking respondents, coloureds, Asians and whites and those without sexual partners. It seemed that people who were more likely to be directly exposed to condom use - that is, those who had a sexual partner and men - had less favourable perceptions regarding the use of condoms. (See Appendix B, Figure B. 8.) Once again, it was difficult to distinguish between the areas, but KwaZulu respondents seem to have had significantly more negative perceptions regarding condom use.

TABLE 19
ANALYSIS OF VARIANCE OF PERCEPTIONS REGARDING THE USE OF CONDOMS

SOURCE OF VARIATION	F-VALUE	DEGREES OF FREEDOM	P-VALUE	NUMBER OF CASES
Gender	47,68	1	0,0001*	5326
Age group	1,20	3	0,3074	5326
Educational level	5,08	5	0,0001*	5326
Occupation	2,91	4	0,0203*	5326
Home language	4,94	4	0,0006*	5326
Population group	23,94	3	0,0001*	5326
Study domain (area)	15,38	9	0,0001*	5326
Access to television	0,59	3	0,6205	5326
Access to radio	3,03	3	0,0283*	5326
Access to printed material	0,77	3	0,5124	5326
Access to other sources	0,81	3	0,4864	5326
Has a sexual partner	4,18	1	0,0410*	5326

* Level of significance is 5 %.

TABLE 20
DUNCAN STATISTICS FOR SIGNIFICANT VARIABLES FROM THE VARIANCE ANALYSIS OF PERCEPTIONS REGARDING THE USE OF CONDOMS

VARIABLE AND LEVELS	MEAN	DUNCAN GROUPING	NUMBER OF CASES
Gender			
male	2,26281	A	2643
female	1,96202	B	2683
Educational level			
none - std 2	2,44813	A	428
stds 3-5	2,42824	A	687
stds 6-8	2,25667	AB	1784
std 9	2,14982	B	546
std 10	1,85781	C	1114
after school	1,64198	D	767
Occupation			
professional, semi-professional and managerial	1,65371	C	620
clerical	1,88581	B	1022
service workers	2,27801	A	282
artisans	2,32825	A	1292
never employed	2,19981	A	2110
Language			
English	1,48720	D	1164
Afrikaans	1,67634	C	875
Nguni	2,56019	A	1939
Sotho	2,34716	B	528
Other	2,24793	B	820
Population group			
white	1,45311	B	1175
Asian	1,61725	B	429
black	2,48196	A	3320
"coloured"	1,50099	B	402
Area			
Northern route from Zimbabwe	2,0640	CB	425
Eastern route from Swaziland/Mozambique	1,8543	CD	420
Witwatersrand	2,2144	B	818
Pretoria, Bophuthatswana and nearby districts	2,0827	CB	665
Natal metropolitan areas	2,0538	CB	858
KwaZulu	3,4963	A	215
Cape Town and nearby districts	1,6644	D	641
Eastern Cape metropoles and Ciskei	2,1969	B	648
Transkei	2,2591	B	208
Orange Free State	2,1449	CB	428
Access to radio			
Often exposed	2,2250	A	3058
Seldom exposed	1,9539	A	1506
Never exposed	1,9494	A	633
Not applicable	2,0481	A	129

VARIABLE AND LEVELS	MEAN	DUNCAN GROUPING	NUMBER OF CASES
Has a sexual partner			
Yes	2,17200	A	4178
No	1,89033	B	1148

0 = No: Positive perceptions 0,8 = Don't know 8 = Yes: Negative perceptions

Means with the same alphabetical letter do not differ statistically from one another.

(ii) Perceptions regarding the availability of condoms

Items included here refer to aspects of availability of the method in terms of easy access, obtaining them free of charge and the price of condoms (see Questions 67, 68 and 69 in Appendix A).

Perceptions regarding condom availability were significantly influenced by gender, educational level, population group, area, access to television and to the printed media (see Table 21).

Respondents tended to be unsure about aspects relating to condom availability, especially about the price of condoms. Women tended to be slightly but significantly more positive. Respondents with the lowest level of education held significantly less positive perceptions regarding condom availability. Those who were most frequently exposed to television and printed sources of information were however more positive (Table 22). (See Appendix B, Figure B.9.)

TABLE 21
ANALYSIS OF VARIANCE OF PERCEPTIONS REGARDING THE AVAILABILITY OF CONDOMS

SOURCE OF VARIATION	F-VALUE	DEGREES OF FREEDOM	P-VALUE	NUMBER OF CASES
Gender	21,61	1	0,0001*	5326
Age group	1,20	3	0,3078	5326
Educational level	3,68	5	0,0025*	5326
Occupation	0,11	4	0,9796	5326
Home language	1,37	4	0,2400	5326
Population group	3,41	3	0,0167*	5326

SOURCE OF VARIATION	F-VALUE	DEGREES OF FREEDOM	P-VALUE	NUMBER OF CASES
Study domain (area)	7,52	9	0,0001*	5326
Access to television	2,81	3	0,0381*	5326
Access to radio	0,33	3	0,8050	5326
Access to printed material	3,74	3	0,0106*	5326
Access to other sources	2,18	3	0,0885	5326
Has a sexual partner	0,05	1	0,8273	5326

* Level of significance is 5 %.

TABLE 22
DUNCAN STATISTICS FOR SIGNIFICANT VARIABLES FROM THE VARIANCE ANALYSIS OF PERCEPTIONS REGARDING THE AVAILABILITY OF CONDOMS

VARIABLE AND LEVELS	MEAN	DUNCAN GROUPING	NUMBER OF CASES
Gender			
male	0,34677	A	2643
female	0,28520	B	2683
Educational level			
none - std 2	0,40093	A	428
stds 3-5	0,36492	BA	687
stds 6-8	0,31923	BC	1784
std 9	0,29139	BC	546
std 10	0,28052	C	1114
after school	0,28462	BC	767
Population group			
white	0,29566	A	1175
Asian	0,29464	A	429
black	0,32669	A	3320
"coloured"	0,30672	A	402
Area			
Northern route from Zimbabwe	0,28918	BCD	425
Eastern route from Swaziland/Mozambique	0,30405	BCD	420
Witwatersrand	0,37848	BA	818
Pretoria, Bophuthatswana and nearby districts	0,34030	BC	665
Natal metropolitan areas	0,36725	BA	858
KwaZulu	0,22930	D	215
Cape Town and nearby districts	0,22777	D	641
Eastern Cape metropoles and Ciskei	0,25201	CD	648
Transkei	0,45673	A	208
Orange Free State	0,29557	BCD	428

VARIABLE AND LEVELS	MEAN	DUNCAN GROUPING	NUMBER OF CASES
Access to printed material			
Often exposed	0,25750	C	1440
Seldom exposed	0,30625	C	1648
Never exposed	0,35668	BA	2089
Not applicable	0,41007	A	149
Access to television			
Often exposed	0,28039	B	2943
Seldom exposed	0,34942	BA	1374
Never exposed	0,39634	A	628
Not applicable	0,33465	BA	381

0 = Yes: Positive attitudes 0,3 = Don't know 3 = No: Negative attitudes

Means with the same alphabetical letter do not differ statistically from one another

4.4.3 Perceptions regarding sexual matters

(i) Acceptability of introducing AIDS information courses into secondary and primary schools

Questions 75 and 76 (see Appendix A) were aimed at assessing the respondents' perceptions of the acceptability of AIDS education and information courses presented to secondary and primary school pupils respectively. Eight variables played a statistically significant role according to the ANOVA analysis as presented in Table 23.

According to the Duncan analysis, the two sexes did not significantly differ in terms of a mean score for this acceptability factor. However, respondents with a higher educational level tended to be more receptive of AIDS education to school children, "Coloured" people tended to be most positive regarding AIDS education and training for school pupils, while blacks were significantly more hesitant. Although mean scores for the different categories of the area variable indicated a great deal of overlapping of the Duncan groupings, respondents in Pretoria, Bophuthatswana, Cape Town, the Eastern Cape metropoles and Ciskei and nearby districts seems to have held slightly more positive (yet not in every case significantly different) perceptions. Regular exposure to television and the printed media seems to have encouraged greater acceptance of introducing AIDS education and information courses to school children.

TABLE 23
ANALYSIS OF VARIANCE OF PERCEPTIONS REGARDING THE ACCEPTABILITY OF PRESENTING AIDS INFORMATION COURSES TO SCHOOL CHILDREN

SOURCE OF VARIATION	F-VALUE	DEGREES OF FREEDOM	P-VALUE	NUMBER OF CASES
Gender	6,16	1	0,0131*	5326
Age group	0,46	3	0,7091	5326
Educational level	4,36	5	0,0006*	5326
Occupation	1,00	4	0,4044	5326
Home language	1,34	4	0,2509	5326
Population group	9,60	3	0,0001*	5326
Study domain (area)	8,58	9	0,0001*	5326
Access to television	2,68	3	0,0451*	5326
Access to radio	2,80	3	0,0383*	5326
Access to printed material	3,53	3	0,0143*	5326
Access to other sources	3,16	3	0,0236*	5326
Has a sexual partner	0,00	1	0,9686	5326

* Level of significance is 5 %.

TABLE 24
DUNCAN STATISTICS FOR SIGNIFICANT VARIABLES FROM THE VARIANCE ANALYSIS OF PERSONS REGARDING THE ACCEPTABILITY OF PRESENTING AIDS INFORMATION COURSES TO SCHOOL CHILDREN

VARIABLE AND LEVELS	MEAN	DUNCAN GROUPING	NUMBER OF CASES
Gender			
male	8,90541	A	2643
female	9,01938	A	2643
Educational level			
one - std 2	8,5257	B	428
stds 3-5	8,4716	B	687
stds 6-8	8,9899	A	1784
std 9	8,9890	A	546
std 10	9,1840	A	1114
after school	9,2438	A	767
Population group			
white	9,3004	B	1175
Asian	9,3869	B	429
black	8,6967	C	3320
"coloured"	9,7214	A	402

VARIABLE AND LEVELS	MEAN	DUNCAN GROUPING	NUMBER OF CASES
Area			
Northern route from Zimbabwe	8,8047	C	425
Eastern route from Swaziland/Mozambique	8,7619	C	420
Witwatersrand	8,6956	C	818
Pretoria, Bophuthatswana and nearby districts	9,2406	BA	665
Natal metropolitan areas	8,7587	C	858
KwaZulu	8,9442	BC	215
Cape Town and nearby districts	9,5351	A	641
Eastern Cape metropole and Ciskei	9,2392	B	648
Transkei	8,9087	BC	208
Orange Free State	8,5654	C	428
Access to television			
Often exposed	9,0452	A	2943
Seldom exposed	9,0509	A	1374
Never exposed	8,4857	B	628
Not applicable	8,7953	A	381
Access to radio			
Often exposed	8,9644	A	3058
Seldom exposed	9,0279	A	1506
Never exposed	8,7741	A	633
Not applicable	9,0930	A	129
Access to written sources			
Often exposed	9,1465	A	1440
Seldom exposed	9,1450	A	1648
Never exposed	8,7257	B	2089
Not applicable	8,4966	B	149
Access to other sources			
Often exposed	9,1964	A	392
Seldom exposed	9,2150	A	707
Never exposed	8,8970	A	4058
Not applicable	8,9467	A	169

0 = No: Negative perceptions 8 = Don't know 10 = Yes: Positive perceptions

Means with the same alphabetic letter do not differ statistically from one another.

(iii) Perceptions regarding the acceptability of multiple sexual partners for men and women

At Questions 55 and 56 (Appendix A) respondents were asked whether they personally found it acceptable for a man and for a woman respectively to have more than one sexual partner as long as the sexual liaisons were more than a month apart. The qualification of "a month apart" was added to convey that this did not indicate a sexual relationship with many partners at one time and also because the pretest and discussions before the survey indicated the presence of a misconception that the risk of contracting STDs and HIV through affairs with multiple sexual partners was reduced when a "safe period" of time was allowed for. This notion might be associated with a perception that "multiple sexual partners" (or a concept of promiscuity) only referred to having sex with more than one partner in the same period or with a misunderstanding regarding testing for HIV antibodies between different sexual contacts.

Variables impacting significantly on these perceptions are indicated in Table 25. According to the Duncan analysis (Table 26) men found multiple sexual partners for both sexes significantly more acceptable than female respondents. English-speaking respondents tended to be significantly more tolerant of multiple sexual relationships than Afrikaans-speaking respondents although significant differences between the English and the other three language groups were not found. Asians were more inclined to find multiple sexual partners for both sexes unacceptable. Respondents from the Cape Town metropole and nearby districts tended to be the most tolerant of multiple sexual partners. However, the mean scores for the other categories of the area variable tended not to be significantly different. People with a sexual partner had a significantly more positive attitude towards multiple sexual partners and since this subgroup included people with casual sexual partners the more tolerant attitude can possibly be ascribed to past experiences. (See Appendix B, Figure B. 10.)

TABLE 25
ANALYSIS OF VARIANCE OF KNOWLEDGE OF PERCEPTIONS REGARDING THE ACCEPTABILITY OF MULTIPLE SEXUAL PARTNERS

SOURCE OF VARIATION	F-VALUE	DEGREES OF FREEDOM	P-VALUE	NUMBER OF CASES
Gender	105,28	1	0,0001*	5326
Age group	2,37	3	0,0688	5326
Educational level	0,91	5	0,4731	5326
Occupation	1,15	4	0,3305	5326
Home language	7,97	4	0,0001*	5326
Population group	19,32	3	0,0001*	5326

SOURCE OF VARIATION	F-VALUE	DEGREES OF FREEDOM	P-VALUE	NUMBER OF CASES
Access to television	0,08	3	0,9733	5326
Access to radio	1,01	3	0,3882	5326
Access to printed material	0,97	3	0,4038	5326
Access to other sources	0,15	3	0,9280	5326
Has a sexual partner	11,25	1	0,0008*	5326

* Level of significance is 5 %.

TABLE 26
DUNCAN STATISTICS FOR SIGNIFICANT VARIABLES FROM THE VARIANCE ANALYSIS OF PERCEPTIONS REGARDING THE ACCEPTABILITY OF MULTIPLE SEXUAL PARTNERS

VARIABLE AND LEVELS	MEAN	DUNCAN GROUPING	NUMBER OF CASES
Gender			
male	0,45221	A	2643
female	0,17488	B	2683
Language			
English	0,37509	A	1164
Afrikaans	0,22811	B	875
Nguni	0,29288	BA	1939
Sotho	0,33182	BA	528
Other	0,34768	BA	820
Population group			
white	0,41736	A	1175
Asian	0,16690	B	429
black	0,30380	BA	3320
"coloured"	0,23308	B	402
Area			
Northern route from Zimbabwe	0,18635	B	425
Eastern route from Swaziland/Mozambique	0,23381	B	420
Witwatersrand	0,26333	B	808
Pretoria, Bophuthatswana and nearby districts	0,28797	B	665
Natal metropolitan areas	0,29079	B	858
KwaZulu	0,27721	B	215
Cape Town and nearby districts	0,49095	A	641
Eastern Cape metropoles and Ciskei	0,37948	BA	648
Transkei	0,34087	BA	208
Orange Free State	0,32593	BA	428

VARIABLE AND LEVELS	MEAN	DUNCAN GROUPING	NUMBER OF CASES
Has a sexual partner			
Yes	0,33346	A	4178
No	0,23624	B	1148

0 = No: Unacceptable 0,2 = Don't know 4 = Yes: Acceptable

Means with the same alphabetical letter do not differ statistically from one another.

At Question 54 respondents were required to indicate who they thought should be mainly responsible for providing efficient protection against HIV transmission in a sexual relationship. Percentage distributions of responses according to a few variables are given in Table 27. It seems that most respondents felt that both sexes should assume responsibility for protection against HIV transmission, although larger proportions indicated men to be responsible than women. (See Appendix B, Figure B.11.)

It was also decided to do a second ANOVA which included perceptions regarding responsibility for protection against HIV infection as an explanatory variable regarding perceptions of acceptability of multiple sexual partners. The appropriate results are given in Tables 28 and 29. As respondents who indicated that no one should take responsibility and those who were unable to give an answer were excluded from the analysis, the results of the Duncan statistics for this analysis are also discussed.

TABLE 27
PER CENT DISTRIBUTION OF PERCEPTIONS REGARDING WHO SHOULD TAKE RESPONSIBILITY FOR PROVIDING PROTECTION AGAINST HIV TRANSMISSION IN A SEXUAL RELATIONSHIP

VARIABLE AND LEVELS	WHO SHOULD TAKE RESPONSIBILITY?						CHI-SQUARE STA-TISTICS	NO. OF CASES
	MEN	WOMEN	BOTH	NO ONE	DON'T KNOW	TOTAL		
Total sample	12,5	4,6	79,3	0,8	2,8	100,0	-	5360
Men	12,4	4,8	78,9	1,1	2,9	100,0	$X^2 = 6,631$	2659
Women	12,7	4,3	79,7	0,5	2,8	100,0	$p = 0,157$	2701
							$N = 5360$	

VARIABLE AND LEVELS	WHO SHOULD TAKE RESPONSIBILITY?						CHI-SQUARE STA-TISTICS	NO. OF CASES
	MEN	WOMEN	BOTH	NO ONE	DON'T KNOW	TOTAL		
English	14,9	2,1	81,5	0,6	0,9	100,0		1170
Afrikaans	13,5	2,5	80,8	0,3	2,9	100,0	$X^2 = 81,8$	876
Nguni	11,1	6,0	78,5	1,0	3,3	100,0	p = 0,000*	1952
Sotho	12,4	6,9	77,1	0,9	2,6	100,0	N = 5360	533
Other	11,7	5,3	77,7	0,7	4,6	100,0		829
white	12,1	1,6	84,6	0,4	1,3	100,0	$X^2 = 104,16$	1181
Asian	21,4	4,7	71,6	0,5	1,9	100,0	p = 0,000*	430
black	11,5	6,0	78,2	0,9	3,5	100,0	N = 5360	3345
"coloured"	13,4	1,5	81,2	0,7	3,2	100,0		404
N-route	11,6	4,0	82,1	0,5	1,9	100,0		430
E-route	13,0	1,9	81,0	0,7	3,3	100,0		422
Rand	15,2	5,4	74,8	0,6	4,0	100,0		822
Pta/Bop	12,8	6,7	78,4	0,5	1,6	100,0	$X^2 = 128,26$	670
Natal	13,6	5,7	76,5	1,5	2,8	100,0	p = 0,000*	862
KwaZulu	4,2	2,3	90,7	0,0	2,8	100,0	N = 5360	216
Cape town	10,5	3,3	82,8	1,2	2,2	100,0		646
E. Cape/ Cis.	9,1	4,0	84,8	0,8	1,4	100,0		652 208
Transkei	24,0	2,9	68,3	0,0	4,8	100,0		432
OFS	12,3	5,6	76,4	0,5	5,3	100,0		
partner	12,7	4,6	79,7	0,7	2,4	100,0	$X^2 = 16,60$	4196
no partner	12,0	4,6	77,9	1,1	4,4	100,0	P = 0,002*	1153
							n = 5349	

* Significant at 5 % level.

TABLE 28

ANALYSIS OF VARIANCE OF PERCEPTIONS REGARDING THE ACCEPTABILITY OF MULTIPLE SEXUAL PARTNERS, WITH PERCEPTIONS REGARDING RESPONSIBILITY INCLUDED IN THE MODEL

SOURCE OF VARIATION	F-VALUE	DEGREES OF FREEDOM	P-VALUE	NUMBER OF CASES
Gender	98,9	1	0,0001*	5136
Age group	2,36	3	0,0694	5136
Educational level	1,15	5	0,3297	5136
Occupation	0,96	4	0,4282	5136
Home language	8,12	4	0,0001*	5136
Population group	18,52	3	0,0001*	5136
Study domain (area)	5,89	9	0,0001*	5136

SOURCE OF VARIATION	F-VALUE	DEGREES OF FREEDOM	P-VALUE	NUMBER OF CASES
Access to television	0,21	3	0,8878	5136
Access to radio	1,05	3	0,3701	5136
Access to printed material	1,12	3	0,3414	5136
Access to other sources	0,04	3	0,9885	5136
Has a sexual partner	11,33	1	0,0008*	5136
Responsibility	9,26	2	0,0001*	5136

* Level of significance is 5 %.

TABLE 29

DUNCAN STATISTICS FOR SIGNIFICANT VARIABLES FROM THE VARIANCE ANALYSIS OF PERCEPTIONS REGARDING THE ACCEPTABILITY OF MULTIPLE SEXUAL PARTNERS, WITH PERCEPTIONS REGARDING RESPONSIBILITY INCLUDED IN THE MODEL

VARIABLE AND LEVELS	MEAN	DUNCAN GROUPING	NUMBER OF CASES
Gender			
male	0,44941	A	2540
female	0,17435	B	2596
Language			
English	0,37681	A	1147
Afrikaans	0,22948	B	848
Nguni	0,28179	BA	1856
Sotho	0,33202	BA	509
Other	0,35477	BA	776
Population group			
white	0,41678	A	1156
Asian	0,17041	B	419
black	0,29852	BA	3175
"coloured"	0,24119	B	386
Area			
Northern route from Zimbabwe	0,19084	B	415
Eastern route from Swaziland/Mozambique	0,22228	B	404
Witwatersrand	0,26449	B	780
Pretoria, Bophuthatswana and nearby districts	0,28802	B	651
Natal metropolitan areas	0,28563	B	821
KwaZulu	0,26286	B	210
Cape Town and nearby districts	0,49387	A	620
Eastern Cape metropoles and Ciskei	0,37760	BA	634
Transkei	0,29545	B	198
Orange Free State	0,34119	BA	634

VARIABLE AND LEVELS	MEAN	DUNCAN GROUPING	NUMBER OF CASES
Responsibility for protection against HIV transmission is that of:			
men	0,41836	A	670
women	0,39303	A	244
both sexes	0,28847	A	4222
Has a sexual partner			
Yes	0,33085	A	4052
No	0,23386	B	1084

0 = No: Unacceptable 0,2 = Don't know 4 = Yes: Acceptable

Means with the same alphabetical letter do not differ statistically from one another.

4.4.4 Perceptions of social distance regarding HIV infected people and PWAs

Questions 39, 40, 42, 43, 44, 45, 46, 47, 48 and 89 (see Appendix A) were aimed at assessing perceptions of social distance toward HIV infected people. Optimal scaling, ANOVA and the Duncan analysis were used to obtain the results described in Tables 30 and 31. A higher mean score indicates greater feelings of social distance regarding HIV infected people and PWA.

Although most mean scores indicated an inclination towards feelings of social distance towards HIV infected people and PWA amongst the different subgroups, younger people, those with lower educational levels, those who were never employed or who were in blue collar jobs, blacks, residents of Transkei and those less exposed to printed media tended to have the greatest feelings of distance. (See Appendix B, Figure B.12.)

TABLE 30
ANALYSIS OF VARIANCE OF PERCEPTIONS OF SOCIAL DISTANCE REGARDING HIV INFECTED PEOPLE

SOURCE OF VARIATION	F-VALUE	DEGREES OF FREEDOM	P-VALUE	NUMBER OF CASES
Gender	7,53	1	0,0061*	5326
Age group	5,40	3	0,0010*	5326
Educational level	26,56	5	0,0001*	5326
Occupation	2,62	4	0,0334*	5326
Home language	1,70	4	0,1466	5326

SOURCE OF VARIATION	F-VALUE	DEGREES OF FREEDOM	P-VALUE	NUMBER OF CASES
Population group	10,44	3	0,001*	5326
Study domain (area)	11,86	9	0,001*	5326
Access to television	1,18	3	0,3163	5326
Access to radio	1,04	3	0,3756	5326
Access to printed material	4,62	3	0,0031*	5326
Access to other sources	1,19	3	0,3108	5326
Has a sexual partner	2,93	1	0,0871	5326

* Level of significance is 5 %.

TABLE 31
DUNCAN STATISTICS FOR SIGNIFICANT VARIABLES FROM THE VARIANCE ANALYSIS OF PERCEPTIONS OF SOCIAL DISTANCE REGARDING HIV INFECTED PEOPLE AND PWAs

VARIABLE AND LEVELS	MEAN	DUNCAN GROUPING	NUMBER OF CASES
Gender			
male	8,8084	A	2643
female	8,5016	A	2643
Age			
13-24	9,0257	A	1842
25-34	8,5567	BA	1632
35-49	8,3700	B	1287
50 and older	8,3688	B	565
Educational level			
none - std 2	11,1537	A	428
stds 3-5	10,8405	A	687
stds 6-8	9,3835	B	1784
std 9	8,7559	B	546
std 10	6,8225	C	1114
after school	6,1907	C	767
Occupation			
professional, semi-professional and managerial	6,0919	D	620
clerical	7,3398	C	1022
service workers	8,4507	B	282
artisans	9,4731	A	1292
never employed	9,5716	A	2110
Population group			
white	5,9648	C	1175
Asian	6,8552	B	429
black	10,1628	A	3320
"coloured"	5,9716	C	402

VARIABLE AND LEVELS	MEAN	DUNCAN GROUPING	NUMBER OF CASES
Area			
Northern route from Zimbabwe	9,0666	DC	425
Eastern route from Swaziland/Mozambique	9,6886	BC	420
Witwatersrand	8,5785	D	818
Pretoria, Bophuthatswana and nearby districts	8,3074	D	665
Natal metropolitan areas	8,3494	D	858
KwaZulu	10,2433	BA	215
Cape Town and nearby districts	6,0268	E	641
Eastern Cape metropoles and Ciskei	8,1486	D	648
Transkei	11,1298	A	209
Orange Free State	9,8715	BC	428
Access to written sources			
Often exposed	8,0919	C	1440
Seldom exposed	7,7096	C	1648
Never exposed	9,6171	B	2089
Not applicable	11,0242	A	149

0 = Positive attitudes 1,1 = Don't know 22 = Negative attitudes

Means with the same alphabetical letter do not differ statistically from one another.

(i) Spontaneous responses as to why the respondent would be inclined to hide his or her HIV infection from others

Approximately two out of every ten respondents indicated that they would hide their HIV positive status from others. At Question 39b (see Appendix A) respondents were asked to explain in their own words why they would keep it secret should they learn that they had been infected with HIV. Eighty-eight percent of respondents who would hide their positive status were able to verbalize a reason. Most frequent responses were that other people would be ashamed to be associated with a person who had HIV infection (thus a fear of loss of support and friendship); that other people would fear the HIV infected person or PWA (thus a fear of being ostracized or isolated); and that the HIV infected person or PWA would lose the rights of privacy and confidentiality that a person with any other kind of affliction or health problem could lay claim to (thus a fear of being treated as different, of being stigmatized and consequently of being isolated, feared and discriminated against). These subjective explanations for not revealing a positive HIV status to others can also be interpreted as expressions of prejudices which these respondents had towards others who were infected as well as their judgements of what the rest of their social groupings thought and felt towards HIV infected people and PWA.

(ii) Spontaneous responses as to why respondents thought others would avoid them if they had AIDS

The majority of respondents (68 %) said that other people would avoid them should they contract HIV infection and develop AIDS (see Question 40 and 41 in Appendix A). In a follow-up question respondents with this perception were asked to give a reason why others would avoid them. The most frequent answers dealt with a conviction that other people were afraid of a PWA or were ashamed to be associated with such a person. However, most of the other responses also dealt with a judgement that their social groupings would act non-unsupportively and that the PWA would be stigmatized (i.e. others would react with fear, shame, label the PWA as homosexual, promiscuous or as a prostitute, that hospitalization and isolation would follow, that sexual contacts would have to be terminated etc.).

(iii) Perceptions regarding AIDS as an exclusively "white" or "black" disease

At Question 50 (see Appendix A) respondents were told:
"Some people say AIDS is a "white disease" and some say it is a "black disease". What do you say?"
All possible responses were recorded and 75 respondents gave two answers. A tenth of the total sample were unable to express an opinion. However, more than half (58 %) of the respondents said that AIDS could happen to anyone. Among those who did not hold the latter opinion, it was more frequently mentioned that AIDS was an exclusively "white disease" than that it was an exclusively "black disease".

(iv) Perceptions in respect of caring for a relative with AIDS in one's own home

Questions 89 and 90 (see Appendix A) dealt with respondents' willingness to take care of a PWA who was a relative in their own homes. The majority of respondents (62 %) said that they would be prepared to offer home care for a relative with AIDS and the most frequent reasons given were that caring for a sick relative was a personal responsibility or duty and that caring would not lead to the care giver being infected.

Less than a third of respondents said that they would not be prepared to care for a relative with AIDS in their home and the most frequent reasons offered were fear of being infected, that a PWA should have hospital care and that lay people were insufficiently informed to deal with the demands of taking care of a PWA.

Another tenth of respondents were unsure whether they would be prepared to offer home care for a relative with AIDS. The most frequent responses among this group were lack of information (unsure or don't know), unsure whether the PWA should not preferably obtain hospital care and unsure of the possibilities of infection to care givers and their families.

(v) Perceptions regarding AIDS as mainly a homosexual syndrome

Perceptions regarding AIDS as an exclusively gay affliction were measured by Question 51. Almost three in every ten respondents said that AIDS was mainly a gay disease, just less than half disagreed with this statement and the remaining fifth of all respondents were unsure.

Since this variable did not load on other perception factors in preliminary factor analysis, it was decided to do a regression analysis of the perception that AIDS is mainly a gay disease. Results are displayed in Table 32. All the different knowledge and perception factors described in the previous section were also included as independent variables in a stepwise regression analysis to select the variables which produce significant F-statistics. Only those with significant variables contributing to the model were included in the final analysis as presented in the table.

Most of the tendencies in the data remain the same and the levels of the responsibility variable do not significantly differ in terms of the mean scores.

TABLE 32
REGRESSION ANALYSIS OF THE PERCEPTION THAT AIDS IS MAINLY A "GAY DISEASE"

INDEPENDENT VARIABLES $R^2 = 9,3^{**}$	COEFFICIENT	PROBABILITY OF EXCEEDANCE
Knowledge of transmission via casual contact	-0,0042	0,0368*
Perceptions of social distance	-0,0052	0,0002*
Acceptability of school AIDS training	0,0020	0,4960
Acceptability of multiple sexual partners	0,0026	0,7112
Gender		
Male	0,03106	0,0001*
Female	-0,03106	0,0001*

INDEPENDENT VARIABLES $R^2 = 9,3^{**}$	COEFFICIENT	PROBABILITY OF EXCEEDANCE
Education		
None-std 2	-0,0537	0,0150*
stds 3-5	-0,1007	0,0001*
stds 6-8	-0,0179	0,1397
std 9	-0,0191	0,3029
std 10	0,0401	0,0081*
after school	0,1513	0,0001*
Language		
English	0,0429	0,0881
Afrikaans	0,0119	0,6682
Nguni	-0,0603	0,0042*
Sotho	-0,0104	0,6730
Other	0,0159	0,4477*
Occupation		
Professional	-0,0004	0,9826
Clerical	0,0081	0,5822
Service	0,0094	0,6909
Artisans	-0,0417	0,0040*
Never employed	0,0246	0,0479*
Population group		
White	0,0544	0,0050*
Asian	-0,0149	0,5235
Black	0,0152	0,6227
"coloured"	-0,0547	0,0192*
Area		
N-route	-0,0294	0,2365
E-route	0,0344	0,1509
Witwatersrand	0,0636	0,0002*
Pretoria and Bop	0,0924	0,0001*
Natal metro	0,0784	0,0001*
KwaZulu	-0,3106	0,0001*
Cape Town	0,1149	0,0001*
E-Cape metro and Ciskei	0,0438	0,0250*
Transkei	-0,0748	0,0205*
OFS	-0,0127	0,6125
Access to written sources		
Often	-0,0333	0,0561
Seldom	0,0309	0,0628
Never	-0,0214	0,1794
N/A	0,0238	0,5397
Access to other sources		
Often	-0,0275	0,2221
Seldom	-0,0098	0,6107
Never	0,0441	0,0050*
N/A	-0,0068	0,8493

INDEPENDENT VARIABLES $R^2 = 9,3^{**}$	COEFFICIENT	PROBABILITY OF EXCEEDANCE
Access to TV		
Often	-0,0209	0,0930
Seldom	-0,0216	0,0987
Never	0,0164	0,3258
N/A	0,0261	0,2131

* Significant at 5% level.

** 90,7% of the variation accounted for by variables are not included in this model.

The regression analysis indicates that a perception that AIDS is a "gay disease" was more prevalent among

- respondents who were less informed about transmission via casual contact;
- respondents who had a more positive attitude of social distance regarding HIV infected people and PWA;
- men.

As far as the other biographical data were concerned, it seems that respondents with higher educational levels (matric or post-school qualifications) to a greater extent than those at lower levels of education tended to regard AIDS as mainly affecting the gay community. Nguni-speaking people were less inclined to view the disease as more prevalent among homosexuals than were other language groups. Blue collar workers were also significantly less prejudiced than other occupational groups while those who had never been employed were more inclined to regard AIDS as a gay disease. "Coloureds" disagreed more with the statement that AIDS is more prevalent among gays while whites tended to agree with the statement. Residents of the Witwatersrand, the Cape Town urban areas and the Eastern Cape metropoles, Ciskei, Pretoria, Bophuthatswana and Natal metropole were more inclined to regard AIDS as mainly a gay disease, as did people who had never been exposed to "other sources" of information on AIDS.

The finding that those who generally were more positive in terms of their perceptions of social distance and those from the higher educational groups and residents of major urban centres showed a greater tendency to describe AIDS as something affecting the gay community more than people with other sexual orientations is surprising. It might be that these groups had greater contact with people who were more open about their gay status and might therefore have been more aware of the impact which the disease had on this community and of the care-oriented actions which emanated from these groups at the onset of the pandemic. Sensational media reports which tend to focus on the impact of AIDS on gay communities rather than on other communities might also have had an influence on shaping perceptions.

4.4.5 Locus of control

(i) Quantitative measure

Questions 82, 83, 84 and 86 (see Appendix A) were aimed at measuring respondents' perceptions regarding self-efficacy in health maintenance and locus of control and responsibility as far as own preventive health measures are concerned. The item at Question 83 did not load on the factor for locus of control and will thus be dealt with separately. Mean scores for locus of control were calculated by means of optimal scaling. Since most of the mean scores were closer to the value 6, most subgroups tended to have an internal locus of control.

Results of the ANOVA and DUNCAN statistics for locus of control are given in Tables 33 and 34. (See Appendix B, Figure B.13.) Groups who had a significantly greater internal locus of control than their counterparts as far as health matters are concerned seem to be:

- men;
- those with higher educational levels;
- those who are employed in white collar jobs;
- language groups other than Nguni-speaking groups;
- whites, Asians and "coloureds";
- those who live outside the "homeland" areas;
- those who are more frequently exposed to the printed media.

TABLE 33
ANALYSIS OF VARIANCE OF PERCEPTIONS OF LOCUS OF CONTROL

SOURCE OF VARIATION	F-VALUE	DEGREES OF FREEDOM	P-VALUE	NUMBER OF CASES
Gender	121,32	1	0,0001*	5326
Age group	3,23	3	0,0214*	5326
Education level	12,81	5	0,0001*	5326
Occupation	2,91	4	0,0202*	5326
Home language	2,83	4	0,0231*	5326
Population group	4,24	3	0,0053*	5326
Study domain (areas)	28,05	9	0,0001*	5326
Access to television	5,52	3	0,0009*	5326
Access to radio	0,45	3	0,7156	5326
Access to printed material	18,32	3	0,0001*	5326

SOURCE OF VARIATION	F-VALUE	DEGREES OF FREEDOM	P-VALUE	NUMBER OF CASES
Access to other sources	2,23	3	0,0830	5326
Has a sexual partner	0,37	1	0,5412	5326

* Level of significance is 5%.

TABLE 34
DUNCAN STATISTICS FOR SIGNIFICANT VARIABLES FROM THE VARIANCE ANALYSIS OF PERCEPTIONS OF LOCUS OF CONTROL

VARIABLE AND LEVELS	MEAN	DUNCAN GROUPING	NUMBER OF CASES
Gender			
male	4,96580	A	2643
female	4,48729	B	2683
Age			
13-24	4,74039	A	1842
25-34	4,76875	A	1632
35-49	4,62735	A	1287
50 and older	4,76850	A	565
Education level			
none - std 2	3,85327	E	428
stds 3-5	4,16507	D	687
stds 6-8	4,67287	C	1784
std 9	4,68352	C	546
std 10	5,06697	B	1114
after school	5,36532	A	767
Occupation			
professional, semi-professional and managerial	5,27903	A	620
clerical	5,06614	B	1022
service workers	4,80780	C	282
artisans	4,52492	D	1292
never employed	4,50777	D	2110
Language			
English	5,24003	A	1164
Afrikaans	5,31680	A	875
Nguni	4,17885	C	1939
Sotho	4,75076	B	528
Other	4,63561	B	820
Population group			
white	5,40374	A	1175
Asian	5,23450	A	429
black	4,38259	C	3320
"coloured"	5,02189	B	402

VARIABLE AND LEVELS	MEAN	DUNCAN GROUPING	NUMBER OF CASES
Area			
Northern route from Zimbabwe	5,03953	BA	425
Eastern route from Swaziland/Mozambique	4,75048	DC	420
Witwatersrand	5,07922	A	818
Pretoria, Bophuthatswana and nearby districts	5,12842	A	665
Natal metropolitan areas	4,29767	E	858
KwaZulu	3,44930	G	215
Cape Town and nearby districts	4,79095	DC	641
Eastern Cape metropoles and Ciskei	4,91451	BAC	648
Transkei	4,03173	F	208
Orange Free State	4,52944	ED	428
Access to television			
Often exposed	4,93082	A	2943
Seldom exposed	4,73726	B	1374
Never exposed	4,07197	C	628
Not applicable	4,16378	C	1374
Access to printed material			
Often exposed	5,07653	A	1440
Seldom exposed	4,98180	A	1648
Never exposed	4,35797	B	2089
Not applicable	3,62416	C	149

0 = Don't know

0,6 = External locus of control

6 = Internal locus of control

Means with the same alphabetical letter do not differ statistically from one another.

As far as Question 83 is concerned, the majority of respondents indicated that they themselves were responsible for their health. These perceptions are further analyzed in Table 35.

TABLE 35
PER CENT DISTRIBUTION OF PERCEPTIONS OF RESPONSIBILITY IN MAINTAINING ONE'S HEALTH

	Who is responsible?					Chi-square statistics	No. of cases
Variable and levels	Self	Doctor/ nurse	Others	Don't know	Total		
Total sample	87,6	9,8	2,6	0,2	100,0	-	5360
men	86,9	11,0	1,9	0,2	100,0	$X^2 = 15,30$	2659
women	88,2	8,6	3,0	0,2	100,0	$p = 0,002^*$	2701
						$N = 5360$	
						$\phi = 0,053$	
13-24	85,7	9,8	4,1	0,4	100,0	$X^2 = 46,63$	1857
25-34	89,3	9,1	1,5	0,1	100,0	$p = 0,000^*$	1640
35-49	89,2	9,4	1,3	0,2	100,0	$N = 5360$	1292
50+	84,8	12,6	2,6	0,0	100,0		571
0-std 2	75,9	20,6	3,5	0,0	100,0		428
stds 3-5	77,1	17,8	4,8	0,3	100,0	$X^2 = 241,74$	690
stds 6-8	86,3	10,5	3,1	0,1	100,0	$p = 0,000^*$	1787
std 9	90,0	7,5	2,0	0,6	100,0	$N = 5337$	547
std 10	93,1	5,6	1,3	0,0	100,0		1116
After school	96,9	2,6	0,1	0,4	100,0		769
English	97,3	2,4	0,3	0,1	100,0		1170
Afrikaans	96,2	2,9	0,7	0,2	100,0	$X^2 = 297,42$	876
Nguni	79,4	16,0	4,4	0,3	100,0	$p = 0,000^*$	1952
Sotho	88,0	9,8	2,2	-	100,0	$N = 5360$	533
Other	83,7	12,8	3,3	0,2	100,0		829
Profes-sional	96,2	3,2	0,6	-	100,0	$X^2 = 108,75$	623
Clerical	92,3	6,7	0,9	0,2	100,0	$p = 0,000^*$	1023
Service	86,2	12,4	1,4	-	100,0	$N = 5360$	283
Artisans	85,7	11,8	2,2	0,2	100,0		1301
Never employed	84,1	11,6	4,1	0,2	100,0		2130
Access to printed media							
Often	91,9	6,7	1,2	0,2	100,0	$X^2 = 110,33$	1448
Seldom	90,6	7,2	2,2	0,1	100,0	$p = 0,000^*$	1660
Never	83,3	13,0	3,5	0,2	100,0	$N = 5360$	2103
N/A	72,5	22,8	4,0	0,7	100,0		149

Variable and levels	Who is responsible?					Chi-square statistics	No. of cases
	Self	Doctor/ nurse	Others	Don't know	Total		
N-route	93,0	4,9	1,9	0,2	100,0		430
E-route	88,2	8,8	2,8	0,2	100,0		422
Wit-watersrand	91,0	7,2	1,8	-	100,0		822
Pretoria, Bop	89,3	8,8	1,8	0,2	100,0	$X^2=492,78$	670
Natal metr.	92,6	5,8	1,3	0,4	100,0	P=0,000*	862
KwaZulu	67,6	29,6	2,3	0,5	100,0	N=5360	216
Cape Town	90,6	8,5	0,6	0,3	100,0		648
E. Cape & Ciskei	86,2	12,4	1,4	-	100,0		652
Transkei	59,1	20,2	20,7	-	100,0		208
OFS	83,6	13,0	3,2	0,2	100,0		432
whites	97,8	1,3	0,7	0,3	100,0	p=0,000*	1181
Asian	97,9	1,9	0,2	-	100,0	p=0,000*	430
black	81,6	14,6	3,7	0,2	100,0	N=5360	3345
"coloured"	96,3	3,2	0,5	-	100,0		404
Access to TV							
Often	91,2	7,1	1,6	0,1	100,0	$X^2=137,99$	2960
Seldom	87,1	10,7	2,1	0,1	100,0	p=0,000*	1384
Never	76,9	17,4	5,2	0,5	100,0	N=5360	633
N/A	79,1	14,4	6,0	0,5	100,0		383

* Significant at 5 % level

Examining the data presented in Table 35, a tendency to shift responsibility from self-care to professional care can be seen among older age groups, lower educational levels, blacks, Nguni-speaking people and those with limited access to sources of information (television and printed media).

(ii) Locus of control: qualitative measure

In Question 85 respondents who felt that they could contribute to own health maintenance and promotion were asked what measures they could possibly take to ensure this. The most frequent responses were exercise, making use of medical care facilities, precautions against HIV transmission and "a clean lifestyle".

In Question 86 respondents were asked if they actually actively tried to keep healthy. In a follow-up question (Question 87), respondents were asked to list the things they actually did to try and keep healthy. Most frequently mentioned were exercising, maintaining a healthy diet and obtaining medical advice.

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It is of interest that 81 % of respondents indicated that one could contribute towards promoting one's health, but that only 70 % said that they actively tried to keep healthy. It seems that the latent intention to be self-efficient in health promotion could not be put into action due to some constraints which may have been of an emotive nature or due to lack of knowledge, support, time, resources or efficient motivation.

4.4.6 Perceptions of susceptibility

Questions 52 and 53 were aimed at assessing respondents' perceptions of their own vulnerability and susceptibility to HIV infection.

Less than half the respondents (44 %) felt that they had no chance of becoming infected with HIV, while a quarter (25 %) perceived themselves to be at a small risk, 12 % said that they had a moderate or big chance and the remaining 20 % were unsure of their susceptibility.

The most frequent reasons offered as to why they felt they were not at risk were the practice of safe or safer sex, celibacy and condom use. Reasons for perceiving their own vulnerability to HIV infection as small or moderate were that there might be a chance of unintentional exposure due to rape, unprotected sex with a casual partner or being uninformed of the sexual history of a partner and that contact with contaminated blood and blood products was avoided but could not be completely ruled out. The 6 % respondents who felt that they were at a great risk of being infected offered reasons such as being uninformed about HIV and AIDS or having many sexual partners or being with a partner who had many sexual contacts. The one in every five respondents who were unsure about their susceptibility to HIV infection offered reasons such as being the victim of rape, being exposed to casual sex, not being informed about the sexual history of their partner and generally being uninformed about HIV and AIDS.

The variable for susceptibility was further used as a predictor in the analysis of behavioural change which is discussed later on in the text.

Furthermore, it was decided to run a multiple stepwise regression to measure the impact of knowledge on perceptions of susceptibility. All the independent variables already described and the different knowledge and perception factors were included in the model. The results are described in Table 36. Through the stepwise procedure those variables producing statistically significant F-values were retained.

TABLE 36
REGRESSION ANALYSIS OF PERCEPTION OF BEING SUSCEPTIBLE TO HIV INFECTION
(0 = HAS NO/SMALL CHANCE; 1 = HAS A MODERATE OR A BIG CHANCE)

R^2 = 2,3** Independent variables	Coefficient	Probability of exceedance
Knowledge of transmission via proven means, Subgroup 2	-0,0073	0,0062*
Knowledge of transmission via casual contact	-0,0079	0,0001*
Knowledge of correct prevention methods	-0,0006	0,9396
Age		
13-24	0,0138	0,1408
25-34	0,0339	0,0003*
35-49	0,0148	0,1378
50+	-0,0619	0,0001*
Education		
none - std 2	-0,0008	0,9650
stds 3-5	-0,0117	0,4227
stds 6-8	0,0062	0,5343
std 9	0,0048	0,7543
std 10	0,0141	0,2480
after school	-0,0126	0,3851
Population group		
white	-0,0087	0,5239
Asian	-0,0608	0,0005*
black	0,0306	0,0060*
"coloured"	0,0389	0,0231*
Area		
N-route	0,0159	0,3924
E-route	-0,0043	0,8166
Witwatersrand	0,0135	0,3462
Pta/Bop	0,0071	0,6363
Natal	-0,0208	0,1722
KwaZulu	-0,0297	0,3248
CT	-0,0241	0,1436
E-Cape/Ciskei	-0,0199	0,2109
Transkei	0,0317	0,2245
OFS	0,0306	0,1157
Has a sexual partner		
Yes	0,0162	0,0202*
No	-0,0162	0,0202*

* Significance at 5 % level.

* 97,7 % of the variation in the perception of susceptibility is due to the variables not included in this model.

A perception of being at risk was associated with:

- better knowledge of transmission via proven means (HIV infection during sexual intercourse);
- being less informed about transmission via casual contact;
- the age group 25 to 35 years (50 years and older perceived less threat);
- being black or "coloured";
- having a sexual partner.

While being correctly informed about HIV transmission during sexual intercourse apparently led to feelings of greater susceptibility, misconceptions regarding the possibility of infection through casual contact seems to also have encouraged unrealistic perceptions of being at risk.

4.4.7 Perceptions of blood tests regarding HIV

The majority of respondents (93 %) were aware of the fact that a blood test can determine HIV seroprevalence (see Question 37 and 38 in Appendix A). A smaller percentage (88 %) indicated that they would take a blood test to determine their HIV status. (See Appendix B, Figure B.14.)

Because the proportions indicating a willingness to undertake a blood test were found to be so large, this variable was not used as a behavioural intention variable. However, the percentage respondents willing to undertake a blood test should they think they might have been infected according to a few independent variables are given in Table 37.

TABLE 37
PERCENTAGE RESPONDENTS INDICATING A WILLINGNESS TO UNDERTAKE A BLOOD TEST SHOULD THEY SUSPECT THEY MIGHT HAVE BEEN INFECTED WITH HIV

VARIABLE AND LEVELS	PERCENTAGE	CHI-SQUARE STATISTICS	NO. OF CASES
Total sample	88,0	-	5360
Men	86,8	$X^2 = 6,360$	2659
Women	89,1	$p = 0,042^*$	2701
		$N = 5360$	
		$\phi = 0,034$	
Perception of susceptibility			
No chance	90,0	$X^2 222,37$	672
Small chance	82,0	$p = 0,000^*$	245
Moderate chance	88,9	$N = 5360$	4250
Big chance	73,2		41
Don't know	67,1		152

VARIABLE AND LEVELS	PERCENTAGE	CHI-SQUARE STATISTICS	NO. OF CASES
whites	96,2	$X^2 = 178,72$	1181
Asians	95,8	$p = 0,000^*$	439
blacks	83,5	$N = 5360$	3345
"coloureds"	92,6		404
Has a partner	88,1	$X^2 = 2,09$	4196
No partner	87,5	$p = 0,352$	1153
		$N = 5349$	
Awareness that a blood test can determine HIV status			
Yes	90,1	$X^2 = 818,34$	4988
No	66,7	$p = 0,000^*$	162
Unsure	54,3	$N = 5349$	210

* Significant at 5 % level.

Surprisingly, individuals perceiving themselves to be at a great risk of infection seems to have been less inclined to willingly undertake a blood test. Greater awareness of the implications of testing might help to address fears and uncertainties as might the creation of a more caring attitude towards those infected and affected by AIDS.

4.4.8 Perceptions regarding confidentiality in the doctor/nurse-patient relationship

Questions 80 and 81 (see Appendix A) were aimed at assessing perceptions of the probable reactions of professional medical personnel (doctors and nurses) to a HIV infected person or a PWA.

Almost 60 % of respondents indicated that they did not believe that a nurse would be prejudiced towards an HIV infected person or a PWA and 60 % that a doctor would treat the knowledge that a patient had been infected with HIV or had developed AIDS as confidential. However, almost a quarter of respondents in respect of nurses and almost a third in respect of doctors indicated decidedly negative perceptions of possible reactions as far as confidentiality in the case of HIV infected people is concerned. These beliefs can act as barriers towards seeking counselling, testing or treatment.

4.5 Communication regarding AIDS-related factors

4.5.1 Exposure to sources of information on HIV and AIDS

Almost two thirds of all respondents indicated that they were exposed to some form of AIDS information or education in the past six months. The main sources of this information spontaneously mentioned by respondents were television (27 %), radio (22 %), magazines (8 %), newspapers (7 %) or "the mass media" collectively (15 %). (See Question 73a and b in Appendix A.)

In a follow-up question (Question 73c in Appendix A) respondents were requested to indicate frequency of exposure to specific communication media. Some of these variables were used as independent variables in the analyses and were listed as such in Part 3. Further breakdowns of percentages according to frequency of exposure appear in Table 38.

TABLE 38
PER CENT DISTRIBUTION OF FREQUENCY OF EXPOSURE TO SOURCES OF INFORMATION ON AIDS IN THE PAST SIX MONTHS

VARIABLE AND LEVELS	(a) TELEVISION				CHI-SQUARE STATISTICS	NO. OF CASES
	OFTEN	SELDOM	NEVER	TOTAL**		
Total sample	59,5	27,8	12,7	100,0	-	4977
Men	60,2	28,4	11,4	100,0	$X^2 = 7,81$	2514
Women	58,7	27,2	14,1	100,0	$P = 0,020^*$	2463
					$N = 4977$	
English	67,2	27,9	5,0	100,0		1149
Afrikaans	73,1	22,8	4,1	100,0	$X^2 = 292,37$	858
Nguni	50,7	29,2	20,1	100,0	$p = 0,000^*$	1693
Sotho	63,6	25,8	10,7	100,0	$N = 4977$	516
Other	49,3	31,7	19,1	100,0		761
white	68,9	26,7	4,4	100,0		1154
Asian	73,4	21,3	5,4	100,0	$X^2 = 251,42$	428
black	52,6	29,1	18,3	100,0	$p = 0,000^*$	2998
"coloured"	68,8	28,2	3,0	100,0	$N = 4977$	397

VARIABLE AND LEVELS	(a) TELEVISION				CHI-SQUARE STATISTICS	NO. OF CASES
	OFTEN	SELDOM	NEVER	TOTAL**		
N-route	72,0	21,6	6,4	100,0		422
E-route	65,9	22,3	11,8	100,0		382
Rand	63,3	24,2	12,6	100,0		770
Pta/Bop	63,4	30,0	6,7	100,0	$X^2 = 260,57$	647
Natal	54,3	31,5	14,2	100,0	$p = 0,000^*$	822
KwaZulu	68,5	17,9	13,6	100,0	$N = 4977$	184
Cape Town	63,7	27,3	9,0	100,0		590
E-Cape/Cis	57,7	30,6	11,7	100,0		588
Transkei	30,4	32,8	36,8	100,0		171
OFS	42,0	34,6	34,6	100,0		402
13-24 years	55,3	10,6	14,1	100,0		1715
25-34 years	61,0	8,5	11,4	100,0	$X^2 = 22,601$	1534
35-49 years	62,8	6,0	12,6	100,0	$p = 0,001^*$	1203
50 years and older	61,3	2,8	12,4	100,0	$N = 4977$	525

VARIABLE AND LEVELS	(b) RADIO				CHI-SQUARE STATISTICS	NO. OF CASES
	OFTEN	SELDOM	NEVER	TOTAL**		
Total sample	58,8	29,0	12,2	100,0	-	5228
Men	60,6	27,9	11,5	100,0	$X^2 = 6,924$	2595
Women	57,1	30,1	12,8	100,0	$p = 0,031^*$	2633
					$N = 5228$	
English	46,9	34,0	34,2	100,0		1138
Afrikaans	51,3	30,6	23,9	100,0	$X^2 = 201,73$	837
Nguni	67,6	25,6	20,6	100,0	$p = 0,000^*$	1917
Sotho	63,4	28,1	7,1	100,0	$N = 5228$	524
Other	59,7	29,2	14,2	100,0		812
white	47,6	34,4	18,0	100,0	$X^2 = 212,87$	1134
Asian	51,4	29,1	19,5	100,0	$p = 0,000^*$	426
black	65,4	26,5	8,1	100,0	$N = 5228$	3284
"coloured"	44,0	34,4	21,6	100,0		384
N-route	62,0	26,8	11,2	100,0		418
E-route	55,9	33,5	10,6	100,0		406
Rand	60,4	26,7	12,9	100,0		806
Pta/Bop	57,0	31,3	11,7	100,0		651
Natal	57,0	30,5	12,5	100,0	$X^2 = 72,42$	853
KwaZulu	79,1	17,1	3,8	100,0	$p = 0,000^*$	210
Cape Town	53,9	28,3	17,8	100,0	$N = 5228$	625
E-Cape/Cis	59,0	31,1	9,9	100,0		634
Transkei	61,4	29,2	9,4	100,0		202
OFS	57,9	28,6	13,5	100,0		423

VARIABLE AND LEVELS	(b) RADIO				CHI-SQUARE STATISTICS	NO. OF CASES
	OFTEN	SELDOM	NEVER	TOTAL**		
13-24 years	58,3	30,2	11,6	100,0		1818
25-34 years	59,4	30,5	10,1	100,0	$X^2 = 27,674$	1607
35-49 years	59,5	27,2	13,3	100,0	p = 0,000*	1248
50 years and older	57,7	24,9	17,5	100,0	N = 5228	555

VARIABLE AND LEVELS	(c) MAGAZINES OR NEWSPAPERS				CHI-SQUARE STATISTICS	NO. OF CASES
	OFTEN	SELDOM	NEVER	TOTAL**		
Total sample	42,4	31,4	26,2	100,0	-	5186
Men	46,2	31,6	22,3	100,0	$X^2 = 46,912$	2583
Women	38,7	31,3	30,0	100,0	P = 0,000*	2603
					n = 5186	
English	51,8	35,0	13,2	100,0	$X^2 = 319,11$	1162
Afrikaans	50,6	35,1	16,6	100,0	4P = 0,000*	863
Nguni	33,1	31,0	35,9	100,0	n = 5186	1835
Sotho	46,6	28,0	25,3	100,0		521
Other	38,3	25,6	36,2	100,0		805
white	49,2	37,8	12,9	100,0	$X^2 = 302,21$	1168
Asian	58,2	25,0	17,1	100,0	P = 0,000*	428
black	36,8	29,1	34,1	100,0	n = 5186	3189
"coloured"	50,1	38,4	11,5	100,0		401
N-route	55,9	7,1	17,1	100,0		426
E-route	39,6	8,5	26,4	100,0		409
Rand	46,6	14,0	25,2	100,0		807
Pta/Bop	44,6	14,2	19,9	100,0	$X^2 = 187,98$	652
Natal	38,7	16,8	28,9	100,0	P = 0,000	845
KwaZulu	40,3	4,4	22,5	100,0	n = 5186	191
Cape Town	43,0	14,3	20,3	100,0		635
E-Cape/Cis	41,1	12,6	25,6	100,0		616
Transkei	29,7	2,6	46,7	100,0		182
OFS	34,8	5,6	43,7	100,0		423
13-24 years	38,4	34,4	27,2	100,0		1809
25-34 years	45,0	32,4	22,6	100,0	$X^2 = 37,127$	1604
35-49 years	44,8	27,4	27,8	100,0	p = 0,000	1232
50 years and older	42,3	27,9	29,8	100,0	N = 5186	541

VARIABLE AND LEVELS	(d) BROCHURES, PAMPHLETS				CHI-SQUARE STATISTICS	NO. OF CASES
	OFTEN	SELDOM	NEVER	TOTAL**		
Total sample	38,5	28,5	33,0	100,0	-	5031
Men	39,6	29,4	31,0	100,0	$X^2 = 8,853$	2505
Women	37,5	27,6	35,0	100,0	P = 0,0128	2526
					N = 5031	
English	43,9	33,2	22,9	100,0		1147
Afrikaans	46,9	29,7	23,3	100,0	$X^2 = 158,94$	844
Nguni	30,6	27,6	41,8	100,0	p = 0,000*	1737
Sotho	43,7	27,9	28,5	100,0	N = 5031	513
Other	35,7	22,5	41,7	100,0		781
white	44,5	32,1	23,5	100,0		1147
Asian	47,1	32,2	20,7	100,0	$X^2 = 158,94$	425
black	34,2	26,2	39,7	100,0	p = 0,000*	3059
"coloured"	45,5	32,0	22,5	100,0	N = 5031	400
N-route	49,9	27,2	22,9	100,0		415
E-route	42,4	24,1	33,5	100,0		394
Rand	42,0	26,9	31,1	100,0		800
Pta/Boþ	42,9	33,1	24,0	100,0	$X^2 = 309,29$	644
Natal	31,3	30,1	38,6	100,0	p = 0,000*	824
KwaZulu	11,9	23,2	64,9	100,0	N = 5031	151
Cape Town	42,9	35,1	22,0	100,0		627
E-Cape/Cis	40,8	30,8	28,4	100,0		588
Transkei	17,9	21,2	60,9	100,0		179
OFS	33,0	18,3	48,7	100,0		409
13-24 years	37,9	30,4	31,7	100,0	$X^2 = 30,181$	1748
25-34 years	41,4	28,1	30,5	100,0	P = 0,000*	1560
35-49 years	38,4	27,3	34,3		N = 5031	
50 years				100,0		1192
and older	32,2	26,0	41,8	100,0		531

VARIABLE AND LEVELS	(e) POSTERS				CHI-SQUARE STATISTICS	NO. OF CASES
	OFTEN	SELDOM	NEVER	TOTAL**		
Total sample	39,2	28,5	32.3	100,0	-	5014
Men	41,1	28,6	30,4	100,0	$X^2 = 9,841$	2504
Women	37,4	28,5	34,1	100,0	p = 0,007*	2510
					N = 5014	
English	44,3	35,4	20,3	100,0		1157
Afrikaans	48,8	32,0	19,2	100,0	$X^2 = 284,40$	854
Nguni	33,1	25,1	41,8	100,0	p = 0,000*	1724
Sotho	41,7	29,3	28,9	100,0	N = 5014	508
Other	33,1	21,4	45,5	100,0		771

VARIABLE AND LEVELS	(e) POSTERS				CHI-SQUARE STATISTICS	NO. OF CASES
	OFTEN	SELDOM	NEVER	TOTAL**		
white	46,9	35,4	17,8	100,0	$X^2 = 256,85$	1159
Asian	47,0	32,6	20,4	100,0	$p = 0,000^*$	426
black	34,6	24,6	40,7	100,0	N = 5014	3029
"coloured"	43,8	33,8	22,5	100,0		400
N-route	44,4	29,4	26,2	100,0		412
E-route	34,8	28,7	36,5	100,0		397
Rand	44,7	26,3	29,0	100,0	$X^2 = 478,47$	801
Pta/Bop	51,8	32,7	15,5	100,0	$p = 0,000^*$	651
Natal	27,6	29,0	43,4	100,0	N = 5014	823
KwaZulu	22,3	22,3	55,4	100,0		139
Cape Town	45,6	35,7	18,7	100,0		631
E-Cape/Cis	45,9	30,5	23,6	100,0		590
Transkei	21,4	22,0	56,6	100,0		182
OFS	24,5	14,1	61,1	100,0		388
13-24 years	39,2	28,7	32,2	100,0	$X^2 = 16,830$	1737
25-34 years	41,1	29,9	29,0	100,0	$p = 0,010^*$	1552
35-49 years	38,7	26,9	34,4	100,0	N = 5014	1196
50 years and older	35,2	27,6	37,2	100,0		529

VARIABLE AND LEVELS	(f) VIDEOTAPES, FILMS OR CASSETTE TAPES				CHI-SQUARE STATISTICS	NO. OF CASES
	OFTEN	SELDOM	NEVER	TOTAL**		
Total sample	6,1	12,7	81,2	100,0	-	4528
Men	7,5	14,1	78,4	100,0	$X^2 = 26,52$	2317
Women	4,6	11,4	84,0	100,0	$p = 0,000^*$	2211
					N = 4628	
English	4,4	15,4	80,2	100,0		1107
Afrikaans	5,6	14,8	79,6	100,0	$X^2 = 44,80$	818
Nguni	6,1	9,3	84,6	100,0	$p = 0,000^*$	1465
Sotho	7,1	16,0	76,9	100,0	N = 4528	450
Other	8,7	11,3	79,9	100,0		688
white	3,8	14,0	82,2	100,0		1115
Asian	5,7	20,9	73,4	100,0	$X^2 = 49,70$	421
black	7,3	11,0	81,7	100,0	$p = 0,000^*$	2627
"coloured"	5,2	12,1	82,7	100,0	N = 4528	365

VARIABLE AND LEVELS	(f) VIDEOTAPES, FILMS OR CASSETTE TAPES				CHI-SQUARE STATISTICS	NO. OF CASES
	OFTEN	SELDOM	NEVER	TOTAL**		
N-route	6,1	14,7	79,2	100,0		395
E-route	4,7	14,6	80,8	100,0		364
Rand	6,8	11,9	81,3	100,0	$X^2 = 60,44$	739
Pta/Bop	6,6	16,9	76,5	100,0	$p = 0,000^*$	579
Natal	3,1	11,7	85,2	100,0	$N = 4528$	785
KwaZulu	6,8	12,0	81,2	100,0		117
Cape Town	5,0	12,0	83,0	100,0		516
E-Cape/Cis	8,4	12,6	79,0	100,0		515
Transkei	5,1	4,0	90,9	100,0		175
OFS	10,8	11,7	77,6	100,0		343
13-24 years	5,3	14,1	80,6	100,0	$X^2 = 14,60$	1558
25-34 years	6,6	13,0	80,4	100,0	$p = 0,024^*$	1408
35-49 years	5,6	11,8	82,6	100,0	$N = 4528$	1091
50 years and older	8,5	9,6	82,0	100,0		471

VARIABLE AND LEVELS	(g) ADVERTISEMENTS ON TAXIS AND BUSES				CHI-SQUARE STATISTICS	NO. OF CASES
	OFTEN	SELDOM	NEVER	TOTAL**		
Total sample	37,6	22,7	39,7	100,0	-	4874
Men	39,7	24,1	36,2	100,0	$X^2 = 24,70$	2463
Women	35,5	21,3	43,2	100,0	$p = 0,000^*$ $N = 4874$	2411
English	30,1	27,3	42,6	100,0		1131
Afrikaans	45,0	23,1	31,9	100,0	$X^2 = 251,72$	811
Nguni	31,5	22,1	46,4	100,0	$p = 0,000^*$	1650
Sotho	63,3	18,4	18,2	100,0	$N = 4874$	521
Other	36,5	19,8	43,6	100,0		761
white	37,2	24,8	38,0	100,0		1105
Asian	40,1	23,1	36,8	100,0	$X^2 = 45,37$	429
black	39,1	20,7	40,1	100,0	$p = 0,000^*$	2960
"coloured"	24,2	31,8	44,0	100,0	$N = 4874$	380
N-route	44,2	28,5	27,3	100,0		414
E-route	17,0	16,4	66,7	100,0		348
Rand	63,2	20,0	16,7	100,0		807
Pta/Bop	77,9	15,2	6,9	100,0	$X^2 = 1227,54$	656
Natal	15,5	29,6	55,0	100,0	$p = 0,000^*$	839
KwaZulu	31,1	20,5	48,5	100,0	$N = 4874$	161
Cape Town	22,9	28,7	48,4	100,0		506
E-Cape/Cis	28,8	21,1	50,1	100,0		573
Transkei	17,9	19,6	62,5	100,0		184
OFS	19,7	22,8	57,5	100,0		386

VARIABLE AND LEVELS	(g) ADVERTISEMENTS ON TAXIS AND BUSES				CHI-SQUARE STATISTICS	NO. OF CASES
	OFTEN	SELDOM	NEVER	TOTAL**		
13-24 years	37,5	23,3	39,2	100,0		1690
25-34 years	40,0	23,0	37,0	100,0	$X^2 = 22,663$	1509
35-49 years	37,4	23,0	39,7	100,0	$p = 0,000^*$	1159
50 years and older	31,6	19,8	48,6	100,0	$N = 4874$	516

VARIABLE AND LEVELS	(h) AT WORK				CHI-SQUARE STATISTICS	NO. OF CASES
	OFTEN	SELDOM	NEVER	TOTAL**		
Total sample	39,2	24,3	36,5	100,0	-	2201
Men	39,9	61,8	34,0	100,0	$X^2 = 10,98$	1266
Women	38,3	38,2	39,9	100,0	$p = 0,009^*$	935
					$N = 2807$	
Professional	47,2	21,0	31,8	100,0		525
Clerical	35,2	23,6	41,1	100,0	$X^2 = 25,05$	715
service	34,6	27,7	37,8	100,0	$p = 0,000^*$	188
artisans	38,6	26,3	35,2	100,0	$N = 2201$	773
never employed	-	-	-	-	-	-
white	30,1	22,7	47,2	100,0		771
Asian	48,2	28,1	23,7	100,0	$X^2 = 78,79$	224
black	45,0	24,8	30,3	100,0	$p = 0,000^*$	1010
"coloured"	35,2	23,5	41,3	100,0	$N = 2201$	196
N-route	38,8	24,2	37,1	100,0		240
E-route	32,8	26,0	41,2	100,0		177
Rand	46,0	22,0	32,0	100,0		328
Pta/Bop	43,5	26,7	29,8	100,0	$X^2 = 62,19$	285
Natal	33,0	30,7	36,4	100,0	$p = 0,000$	349
KwaZulu	65,4	17,3	17,3	100,0	$N = 2201$	75
Cape Town	32,4	22,4	45,2	100,0		312
E-Cape/Cis	39,6	19,6	40,8	100,0		250
Transkei	41,8	19,0	39,2	100,0		79
OFS	37,7	26,4	35,9	100,0		106
13-24 years	33,6	23,5	42,9	100,0		387
25-34 years	41,7	24,5	33,8	100,0	$X^2 = 11,48$	844
35-49 years	39,1	25,0	35,8	100,0	$p = 0,075$	723
50 years and older	39,7	22,3	38,1	100,0	$N = 2201$	247

VARIABLE AND LEVELS	(i) AT SCHOOL				CHI-SQUARE STATISTICS	NO. OF CASES
	OFTEN	SELDOM	NEVER	TOTAL**		
Total sample	44,9	29,3	25,8	100,0	-	842
white	41,9	39,2	18,9	100,0	$X^2 = 21,87$	74
Asian	63,2	26,3	10,5	100,0	$p = 0,001$	38
black	42,7	28,9	28,4	100,0	$N = 842$	679
"coloured"	64,7	23,5	11,8	100,0		51
N-route	50,8	26,2	23,1	100,0		65
E-route	29,2	41,7	29,2	100,0		72
Rand	40,7	32,2	27,1	100,0	$X^2 = 74,16$	118
Pta/Bop	43,6	31,9	24,5	100,0	$p = 0,000$	94
Natal	32,3	28,6	39,1	100,0	$N = 842$	133
KwaZulu	73,2	19,5	7,3	100,0		41
Cape Town	53,9	28,6	17,6	100,0		91
E-Cape/Cis	63,6	24,3	12,2	100,0		107
Transkei	18,9	46,0	35,1	100,0		37
OFS	45,2	20,2	34,5	100,0		84
English	55,8	28,3	15,9	100,0		113
Afrikaans	49,2	39,0	11,9	100,0	$X^2 = 22,158$	59
Nguni	42,5	30,8	26,7	100,0	$p = 0,005$*	393
Sotho	47,3	20,5	32,1	100,0	$N = 842$	112
Other	40,0	29,1	30,9	100,0		165
13- 15 years	38,3	33,5	28,3	100,0		230
16- 18 years	47,0	27,8	25,2	100,0	$X^2 = 5,79$	345
19- 21 years	47,9	27,7	24,3	100,0	$p = 0,215$ $N = 842$	267
22 years and older	-	-	-	100,0		-

* Significant at 5 % level.

** Calculated from the total number of respondents who have access to a particular source.

It seems that exposure to television was less prevalent among the black target group and the younger age groups (13 to 24 years old). The radio seems to have been a frequently used source among blacks. Magazines and newspapers were mentioned as sources that were often used for obtaining information on AIDS by smaller proportions of respondents than in the case of the electronic media. Especially in Transkei and the Orange Free State, the printed media was not used often. Brochures, pamphlets and posters were seen often by less than half of all the subgroups and were poorly accessible in Transkei and Natal. Advertisements on taxis and buses were also less frequently used as sources of information and especially so in the Eastern-route area, Natal, Transkei and the Orange Free State. Sources such as videotapes, films or audio tapes were used often by less than a tenth of respondents. About two-thirds of working respondents were exposed to a greater or lesser extent to AIDS information at their places of employment. However, the

quality and means of the information (i.e. formal employee programmes or informal discussions with colleagues, reading matter or posters) are not known. Almost three-quarters of respondents who were at school were exposed (often or seldom) to some form of AIDS education and information at school. The proportions often exposed to AIDS education at school were higher amongst Asians, "coloureds", residents in the Northern-route area, KwaZulu, the Eastern Cape metropoles and Ciskei and the Western Cape metropole, English-speaking pupils and those in their teenage years.

Almost a tenth of respondents also mentioned other sources not listed in Question 73. The most important ones mentioned were clinics (41 %), community meetings (19 %) and friends and relatives (18 %).

4.5.2 Efforts to obtain information on HIV and AIDS

Less than a third of respondents indicated that they had ever tried to obtain information on HIV and AIDS on their own (see Question 74 in Appendix A).

4.5.3 Social sources of information on AIDS: sources contacted recently

Respondents were also asked whether they had actually discussed the specific topic of AIDS in the **last month** with certain categories of individuals (see Question 77 in Appendix A).

A value of 1 was allocated when the source was contacted and 0 when not and the "not applicable" category was deleted. Optimal scaling was used to develop a factor describing use of these social sources, with a minimum of zero if no-one was contacted and a maximum of 5 when all were contacted. Results of variance analyses in respect of this measure are described in Tables 39 and 40. There seems to be a significant increase in contact with social sources with an increase in educational level. Individuals from the Sotho, Nguni and "other" language groupings also discussed AIDS and HIV to a greater extent with social sources than did English- or Afrikaans-speaking individuals. Black respondents as a group also tended to have discussed the topics of HIV and AIDS with others to a greater extent than other groupings and the score for KwaZulu was much higher than for other areas. Those respondents who were more regularly exposed to television, radio, printed media and other media as sources of information tended also to have been more inclined to discuss HIV and AIDS with social sources too.

Respondents with a sexual partner were more inclined than those without to discuss AIDS with others.

TABLE 39
ANALYSIS OF VARIANCE OF CONTACT WITH SOCIAL SOURCES OF INFORMATION ON HIV AND AIDS

SOURCE OF VARIATION	F-VALUE	DEGREES OF FREEDOM	P-VALUE	NUMBER OF CASES
Gender	0,01	1	0,9426	4327
Age group	1,00	3	0,3928	4327
Educational level	4,61	5	0,0003*	4327
Occupation	1,17	4	0,3223	4327
Home language	7,91	4	0,0001*	4327
Population group	6,93	3	0,0001*	4327
Study domain (area)	4,91	9	0,0001*	4327
Access to television	18,81	3	0,0001*	4327
Access to radio	18,73	3	0,0001*	4327
Access to printed material	31,65	3	0,0001*	4327
Access to other sources	18,81	3	0,0001*	4327
Has a sexual partner	13,64	1	0,0003*	4327

* Level of significance is 5 %.

TABLE 40
DUNCAN STATISTICS FOR SIGNIFICANT VARIABLES FROM THE VARIANCE ANALYSIS OF CONTACT WITH SOCIAL SOURCES OF INFORMATION ON HIV AND AIDS

VARIABLE AND LEVELS	MEAN	DUNCAN GROUPING	NUMBER OF CASES
Educational level			
none - std 2	1,22841	C	359
stds 3-5	1,23440	C	593
stds 6-8	1,45356	B	1475
std 9	1,70264	A	454
std 10	1,57973	BA	878
after school	1,72759	A	569
Language			
English	1,30654	C	871
Afrikaans	1,11496	D	635
Nguni	1,50184	B	1628
Sotho	1,89562	A	479
Other	1,76364	A	715

VARIABLE AND LEVELS	MEAN	DUNCAN GROUPING	NUMBER OF CASES
Population group			
white	1,24067	B	777
Asian	1,18528	B	394
black	1,64576	A	2854
"coloured"	1,09571	B	303
Area			
Northern route from Zimbabwe	1,72751	B	378
Eastern route from Swaziland/Mozambique	1,45143	CB	350
Witwatersrand	1,70490	B	715
Pretoria, Bophuthatswana and nearby districts	1,61754	B	536
Natal metropolitan areas	1,16580	D	766
KwaZulu	2,04444	A	135
Cape Town and nearby districts	1,31729	CD	457
Eastern Cape metropoles and Ciskei	1,47222	CB	432
Transkei	1,30198	CD	202
Orange Free State	2,52101	CB	357
Access to television			
Often exposed	1,74150	A	2352
Seldom exposed	1,35147	B	1121
Never exposed	0,92883	C	562
Not applicable	1,11604	C	293
Access to radio			
Often exposed	1,7531	A	2463
Seldom exposed	1,2661	B	1255
Never exposed	0,9033	C	517
Not applicable	0,9247	C	93
Access to printed material			
Often exposed	1,99659	A	1172
Seldom exposed	1,59291	B	1297
Never exposed	1,12073	C	1756
Not applicable	0,83495	D	103
Access to other sources			
Often exposed	2,3846	A	286
Seldom exposed	1,8534	B	580
Never exposed	1,3685	C	3351
Not applicable	1,0541	D	111
Has a sexual partner			
Yes	1,56639	A	3434
No	1,20917	B	894

0 = Not contacted

5 = Contacted

Means with the same alphabetical letter do not differ statistically from one another.

4.5.4 Sources of information on AIDS: subjective indications of influential agents in behavioural change

At Question 78 (see Appendix A) respondents were to read a list of possible sources of information and asked to judge whether information on HIV or AIDS from that particular source would influence their behaviour or way of life.

The following sources were included as items for a factor describing possible influential sources: friends, relatives, a nurse, doctor, church leader or minister of religion and printed material. The other sources listed in Question 78 were not included, as proportions of respondents who indicated that these sources were not accessible to them were more than 10 %. Once again, a value of 1 was allocated for an affirmative answer and 0 for a negative answer. In this case both the "don't know" and "not applicable" categories were deleted.

Significant variables and differences in mean scores are given in Tables 41 and 42. Although the ANOVA indicated four variables, namely age group, occupation, area and access to printed media, to be meaningful, the Duncan procedure only indicated significant differences between levels for the area. It seems that respondents from the Eastern-route area were more limited in their perceived influential sources than other areas while KwaZulu and Cape Town residents were inclined to list more sources as possible subjective change agents. Respondents with greater exposure to written media also tended to list more possible sources influencing behaviour change.

TABLE 41
ANALYSIS OF VARIANCE OF SOURCES OF INFORMATION WHICH MIGHT INFLUENCE BEHAVIOURAL CHANGE

SOURCE OF VARIATION	F-VALUE	DEGREES OF FREEDOM	P-VALUE	NUMBER OF CASES
Gender	0,95	1	0,3298	4211
Age group	2,97	3	0,0305*	4211
Educational level	1,12	5	0,3461	4211
Occupation	3,45	4	0,0081*	4211
Home language	1,00	4	0,4065	4211
Population group	1,55	3	0,1996	4211
Study domain (area)	17,57	9	0,0001*	4211
Access to television	0,61	3	0,6100	4211
Access to radio	1,39	3	0,2441	4211

SOURCE OF VARIATION	F-VALUE	DEGREES OF FREEDOM	P-VALUE	NUMBER OF CASES
Access to printed material	7,70	3	0,0001*	4211
Access to other sources	1,83	3	0,1402	4211
Has a sexual partner	2,85	1	0,0913	4211

* Level of significance is 5 %.

TABLE 42
DUNCAN STATISTICS FOR SIGNIFICANT VARIABLES FROM THE VARIANCE ANALYSIS OF SOURCES OF INFORMATION WHICH MIGHT INFLUENCE BEHAVIOURAL CHANGE

VARIABLE AND LEVELS	MEAN	DUNCAN GROUPING	NUMBER OF CASES
Age			
13-24	3,9688	A	1476
25-34	3,9264	A	1318
35-49	3,7862	A	987
50 and older	3,5336	A	431
Occupation			
professional, semi-professional and managerial	3,9591	A	495
clerical	3,6959	A	855
service workers	3,9591	A	220
artisans	4,0346	A	1013
never employed	3,8318	A	1629
Area			
Northern route from Zimbabwe	3,7197	DC	346
Eastern route from Swaziland/Mozambique	2,8194	E	310
Witwatersrand	4,1455	BAC	653
Pretoria, Bophuthatswana and nearby districts	4,0519	C	559
Natal metropolitan areas	3,4043	D	690
KwaZulu	4,5980	A	102
Cape Town and nearby districts	4,5963	A	540
Eastern Cape metropoles and Ciskei	3,7198	DC	514
Transkei	4,4528	BA	159
Orange Free State	3,6578	DC	339
Access to printed material			
Often exposed	4,1408	A	1200
Seldom exposed	4,0222	A	1351
Never exposed	3,5515	A	1612
Not applicable	3,3673	A	49

0 = Negative 6 = Positive

Means with the same alphabetical letter do not differ statistically from one another.

4.5.5 Preferred method of communication regarding AIDS

Respondents were asked to indicate a preferred method of communication regarding information on HIV and AIDS (see Question 79 in Appendix A). Most preferred methods were interpersonal communication (40 %) and the television (a third). Further breakdowns of these percentages are given in Table 43.

Of interest is the greater preference for interpersonal communication in the dissemination of AIDS and relevant information among black respondents (both Sotho- and Nguni-speaking groups), younger age groups and people with lower educational levels. Afrikaans-speaking whites and "coloured" people tended to have a slightly higher preference for AIDS education and information via television than their respective counterparts. Education via radio seems to have been favoured especially by Nguni-speaking individuals. Printed media as mode of communication in AIDS education and information was favoured more by whites and people with higher educational status.

TABLE 43
PER CENT DISTRIBUTION OF PREFERRED METHODS OF COMMUNICATION REGARDING INFORMATION ON HIV AND AIDS

VARIABLE AND LEVELS	METHOD PREFERRED						CHI-SQUARE STATISTICS	NO. OF CASES
	INTER-PERSONAL	TV	RADIO	PRINTED MEDIA	DON'T KNOW	TOTAL		
Total sample	39,9	32,9	10,0	16,7	0,5	100,0	-	5360
Men	39,8	33,0	9,1	17,9	0,2	100,0	$X^2 = 18,753$	2659
Women	40,0	32,8	10,9	15,5	0,9	100,0	$p = 0,001^*$	2701
							$N = 5360$	
English	33,1	37,5	3,4	25,7	0,3	100,0		1170
Afrikaans	28,1	41,4	2,6	27,6	0,2	100,0	$X^2 = 532,08$	876
Nguni	47,4	27,1	15,2	9,5	0,9	100,0	$p = 0,000^*$	1952
Sotho	48,4	33,6	7,1	10,3	0,6	100,0	$N = 5360$	533
Other	38,6	30,6	16,9	13,5	0,4	100,0		829
white	29,6	38,6	2,2	29,2	0,4	100,0	$X^2 = 570,58$	1181
Asian	36,7	33,7	2,3	27,2	0,0	100,0	$P = 0,000^*$	430
black	45,4	28,7	14,8	10,4	0,7	100,0	$N = 5360$	3345
"coloured"	27,2	50,0	1,7	21,0	0,0	100,0		404
13-24	42,0	32,4	9,9	15,4	0,4	100,0		
25-34	39,7	34,3	9,5	16,2	0,4	100,0	$X^2 = 16,81$	
35-49	38,5	32,0	10,2	18,3	0,9	100,0	$p = 0,157$	
50 and older	36,6	32,4	11,6	18,9	0,5	100,0	$N = 5360$	

VARIABLE AND LEVELS	METHOD PREFERRED						CHI-SQUARE STATISTICS	NO. OF CASES
	INTER-PERSONAL	TV	RADIO	PRINTED MEDIA	DON'T KNOW	TOTAL		
none - std 2								428
stds 3-5	46,3	22,0	26,6	4,7	0,5	100,0	$X^2 = 407,03$	690
stds 6-8	44,2	28,4	16,4	10,1	0,9	100,0	$p = 0,000^*$	1787
std 9	43,4	32,0	9,4	14,7	0,6	100,0	N = 5360	547
std 10	43,5	33,3	8,0	14,4	0,7	100,010		1116
after school	31,9	38,6	6,2	22,9	0,4	0,0		769
	33,3	36,7	3,4	26,3	0,4	100,0		

4.6 AIDS-related behavioural intentions and behaviour

4.6.1 Sexual partners

Patterns of sexual unions were measured by Questions 91a, b and c (Appendix A). Table 44 indicates the observed patterns in the study group.

It seems that most respondents were sexually active as only 22 % indicated that they had no sexual partner and 0,2 % refused to comment. Those in sexual unions were not all in single-partner relationships. Of the total sample, 31 % were married with no other sexual partners, 22 % were unmarried and had only one permanent sexual partner and 7 % had only a casual sexual partner or partners. The rest indicated multi-partner relationships. The following pattern emerged:

22 % celibate

0,2 % refused

59 % in a single-partner relationship* of whom

- 11 % were married
- 37 % had a permanent partner
- 52 % had a casual partner*

100 %

19 % in multi-partner relationships of whom

- 54 % were married and had a permanent partner
- 6 % were married and had a casual partner
- 9 % were married and had a permanent and a casual partner
- 31 % were unmarried and had a permanent and casual partner

100 %

* This might be an overestimate as the question included a single casual partner or more than one casual partners.

From Table 44 it seems that especially the younger age groups were more inclined to engage in casual single- or multi-partner relationships.

TABLE 44
PATTERNS OF SEXUAL UNIONS

VARIABLE AND LEVELS	(A) % RESPONDENTS WITH ONLY A MARRIED PARTNER	CHI-SQUARE STATISTICS	NO. OF CASES
Total sample	30,5	-	5360
Men	27,7	$X^2 = 19,35$	2659
Women	33,2	$P = 0,000^*$	2701
13-24 years	8,0		1857
25-34 years	34,5	$X^2 = 766,8$	1640
35-49 years	49,2	$P = 0,000^*$	1292
50 years and older	49,7		571
white	39,6		1181
Asian	53,7	$X^2 = 267,05$	430
black	23,0	$P = 0,000^*$	3345
"coloured"	41,1		404
VARIABLE AND LEVELS	**(B) % RESPONDENTS WITH A PERMANENT SEXUAL PARTNER, BUT NOT MARRIED**	**CHI-SQUARE STATISTICS**	**NO. OF CASES**
Total sample	21,9	-	5360
Men	18,8	$X^2 = 30,30$	2659
Women	25,0	$p = 0,000^*$	2701
13-24 years	32,2		1857
25-34 years	23,7	$X^2 = 275,38$	1640
35-49 years	12,2	$p = 0,000^*$	1292
50 years and older	5,8		571
white	19,1		1181
Asian	6,5	$X^2 = 97,27$	430
black	25,6	$p = 0,000^*$	3345
"coloured"	16.8		404

VARIABLE AND LEVELS	(C) % MARRIED RESPONDENTS WHO ALSO HAVE A PERMANENT SEXUAL PARTNER OTHER THAN SPOUSE	CHI-SQUARE STATISTICS	NO. OF CASES
Total sample	10,3	-	5360
Men	11,1	$X^2 = 3,28$	2659
Women	9,6	$p = 0,070$	2701
13-24 years	2,8		1857
25-34 years	12,1	$X^2 = 195,95$	1640
35-49 years	17,0	$p = 0,000^*$	1292
50 years and older	14,9		571
white	3,6		1181
Asian	11,4	$X^2 = 105,95$	430
black	13,3	$p = 0,000^*$	3345
"coloured"	4,16	$N = 5360$	404

VARIABLE AND LEVELS	(D) % RESPONDENTS WITH ONLY (A) CASUAL SEXUAL PARTNER(S)	CHI-SQUARE STATISTICS	NO. OF CASES
Total sample	6,5	-	5360
Men	9,9	$X^2 = 105,42$	2659
Women	3,0	$p = 0,000^*$	2701
13-24 years	10,2		1857
25-34 years	6,7	$X^2 = 93,75$	1640
35-49 years	2,8	$p = 0,000^*$	1292
50 years and older	1,8		571
white	5,1		1181
Asian	2,1	$X^2 = 26,25$	430
black	7,7	$p = 0,000^*$	3345
"coloured"	5,2		404

VARIABLE AND LEVELS	(E) % MARRIED RESPONDENTS WITH (A) CASUAL SEXUAL PARTNER(S)	CHI-SQUARE STATISTICS	NO. OF CASES
Total sample	1,2	-	5360
Men	1,9	$X^2 = 22,58$	2659
Women	0,5	$p = 0,000^*$	2701

VARIABLE AND LEVELS	(E) % MARRIED RESPONDENTS WITH (A) CASUAL SEXUAL PARTNER(S)	CHI-SQUARE STATISTICS	NO. OF CASES
13-24 years	0,5		1857
25-34 years	1,3	$X^2 = 15,59$	1640
35-49 years	2,0	$p = 0,000^*$	1292
50 years and older	1,2		571
white	0,8		1181
Asian	1,2	$X^2 = 6,67$	430
black	1,4	$p = 0,083^*$	3345
"coloured"	0,3		404

VARIABLE AND LEVELS	(F) % UNMARRIED RESPONDENTS WITH A PERMANENT SEXUAL AND CASUAL PARTNER(S)	CHI-SQUARE STATISTICS	NO. OF CASES
Total sample	5,8	-	5360
Men	9,0	$X^2 = 98,58$	2659
Women	2,6	$p = 0,000^*$	2701
13-24 years	8,7		1857
25-34 years	7,1	$X^2 = 94,17$	1640
35-49 years	2,1	$p = 0,000^*$	1292
50 years and older	0,7		571
white	1,9		1181
Asian	1,4	$X^2 = 109,72$	430
black	8,3	$p = 0,000^*$	3345
"coloured"	0,5		404

VARIABLE AND LEVELS	(G) % MARRIED RESPONDENTS WITH A PARMANENT SEXUAL PARTNER WHO ALSO HAVE (A) CASUAL SEXUAL PARTNER(S)	CHI-SQUARE STATISTICS	NO. OF CASES
Total sample	1,8	-	5360
Men	2,8	$X^2 = 31,80$	2659
Women	0,8	$p = 0,000^*$	2701
13-24 years	0,6		1857
25-34 years	2,3		1640
35-49 years	2,7	$X^2 = 24,14$	1292
50 years and older	2,3	$p = 0,000^*$	571

VARIABLE AND LEVELS	(G) % MARRIED RESPONDENTS WITH A PARMANENT SEXUAL PARTNER WHO ALSO HAVE (A) CASUAL SEXUAL PARTNER(S)	CHI-SQUARE STATISTICS	NO. OF CASES
white	0,3		1181
Asian	0,5	$X^2 = 43,96$	430
black	2,7	$p = 0,000^*$	3345
"coloured"	0,0		404

VARIABLE AND LEVELS	(H) % RESPONDENTS WITH NO SEXUAL PARTNER	CHI-SQUARE STATISTICS	NO. OF CASES
Total sample	21,5	-	5360
Men	18,4	$X^2 = 30,44$	2659
Women	24,6	$p = 0,000^*$	2701
13-24 years	36,5		1857
25-34 years	11,8		1640
35-49 years	11,5	$X^2 = 416,96$	1292
50 years and older	23,3	$p = 0,000^*$	571
white	29,3		1181
Asian	23,3	$X^2 = 101,23$	430
black	17,3	$p = 0,000^*$	3345
"coloured"	31,4		404

VARIABLE AND LEVELS	(I) % RESPONDENTS WHO REFUSED TO ANSWER IN RESPECT OF SEXUAL UNION	CHI-SQUARE STATISTICS	NO. OF CASES
Total sample	0,2	-	5360
Men	0,2	$X^2 = 0,773$	2659
Women	0,3	$p = 0,379^*$	2701
13-24 years	0,3		1857
25-34 years	0,1	$X^2 = 0,998$	1640
35-49 years	0,2	$P = 0,802$	1292
50 years and older	0,2		571
white	0,3		1181
Asian	0,1	$X^2 = 1,060$	430
black	0,2	$p = 0,787^*$	3345
"coloured"	0,3		404

4.6.2 Reported use of condoms during sex in the previous three months: past behaviour

In terms of to responses to Question 92 (Appendix A), just less than two thirds (63 %) of respondents in sexual unions did not use condoms in the previous three months. Less than a quarter (22 %) said that they used condoms, of whom only 9 % used it at every exposure and 14% only occasionally. The remaining 15 % sexually active respondents refused to report on condom use. Condom use therefore seems to be an irregular practice among sexually active people.

A regression analysis was run on condom use (value of 1 for use and 0 for non-use) for those who responded. In the analysis all the previously discussed factors for knowledge, perceptions and attitudes were included as independent variables in the regression model. Because of the large number of variables, a stepwise regression analysis was used and only variables that contributed most to variation in condom use are reported in Table 45. In the interpretation of the results one should take cognisance of the fact that use of condoms in this survey was dependent on the self-reporting by respondents, and the possibility of overreporting (social desirability) or underreporting (shyness) existed.

Of interest is that knowledge factors such as those pertaining to transmission via proven means, or to severity or protection were not retained in the regression model because they contributed insignificantly to the observed variation in condom use. Of the factors remaining in the final model only those with a statistically significant association with the dependent variable will be discussed in the section below.

Respondents with a greater acceptance of AIDS education in schools were significantly more inclined to say that they used condoms. Those who had more positive perceptions regarding condom use in general tended to be significantly more inclined to report condom use. Respondents who were more accepting of multi-partner relationships significantly tended to report condom use. Both actual use of social sources of information and intentions to follow the advice of significant sources on AIDS prevention significantly contributed to a tendency to admit to using condoms. Men reported more condom use than women, and reported condom use seems to be more prevalent among the younger age groups. Coloureds significantly reported condom use to a greater extent than other groupings, while reported condom use was significantly low in terms of Asians. Residents of the Witwatersrand and Natal metropoles were more inclined to say that they used condoms while reported use in Eastern Cape metropoles and Ciskei seems to be significantly lower. While access to television indicated an inconsistent pattern in terms of condom use, regular access to the radio as source of information seems to have a significant association with reported condom

use. Respondents who perceived themselves as being at a small to moderate risk of being infected with HIV were significantly more inclined to say that they used condoms than those who had a perception of no risk, a high risk or who were not sure of their own susceptibility.

TABLE 45
REGRESSION ANALYSIS OF CONDOM USE IN THE PREVIOUS THREE MONTHS BY RESPONDENTS WITH SEXUAL PARTNERS

INDEPENDENT VARIABLES R^2 = 9,63 %**	COEFFICIENT	PROBABILITY OF EXCEEDANCE
Knowledge of transmission via casual contact	-0,0021	0,4395
Perceptions of social distance	-0,0035	0,0511
Acceptability of AIDS education	0,0076	0,0440*
Perceptions regarding condoms	-0,0265	0,0001*
Acceptability of multiple sexual partners	0,0256	0,00047*
Information sources used	0,0386	0,0001*
Possible influential sources	0,0087	0,0301*
Gender		
Male	0,0534	0,0001*
Female	-0,0534	0,0001*
Age		
13-24	0,0969	0,0001*
25-34	0,0507	0,0005*
35-49	-0,0255	0,1135*
50 or older	-0,1221	0,0001*
Occupation		
Professional	-0,0010	0,9660
Clerical	-0,0037	0,8464
Service	-0,0571	0,0759
Artisans	0,0261	0,1406
Never employed	0,0357	0,0478*
Population group		
whites	0,0155	0,5334
Asian	-0,0795	0,0020*
black	-0,0012	0,9496
"coloured"	0,0652	0,0360*

INDEPENDENT VARIABLES R^2 = 9,63 %**	COEFFICIENT	PROBABILITY OF EXCEEDANCE
Area		
N-route	-0,0143	0,6404
E-route	0,0186	0,5630
Witwatersrand	0,0458	0,0376*
Pretoria, Bophuthatswana	0,0129	0,6039
Natal metropoles	0,0503	0,0295*
KwaZulu	-0,0444	0,4245
Cape Town	-0,0299	0,3113
Eastern Cape & Ciskei	-0,0565	0,0316*
Transkei	-0,0030	0,9484
OFS	0,0205	0,4688
Access to TV		
Often	-0,0032	0,8465
Seldom	0,0353	0,0419*
Never	-0,0210	0,3406
N/A	-0,0111	0,6970
Access to Radio		
Often	-0,0552	0,0129*
Seldom	0,0203	0,3685
Never	0,0315	0,2650
N/A	-0,107	0,0470*
Perceived susceptibility		
No chance	0,0135	0,3439
Small-moderate	0,0715	0,0001*
Big chance	-0,0365	0,1378
Don't know	-0,0485	0,0072*

* Significant at 5% level.

** 90,4 % of the variance in condom use in sexual unions in the previous three months are explained by variables not included in the model.

4.6.3 Reported use of condoms in a casual sexual liaison, irrespective of when this encounter took place: past behaviour

All respondents who indicated that they were in a permanent sexual union (married or consensual unions) were asked if they had ever had sex with a person who was not a spouse or a regular partner. About a quarter answered affirmatively, 73 % said no and 3 % refused to give an answer. The authors suspect considerable underreporting of casual sexual liaisons, but this cannot be verified. The respondents who gave an affirmative answer to Question 93 were asked whether they had ever used a condom during such an encounter, and 42 % said that they had. The inclination to use a condom (and report it) during sexual intercourse with a partner other than a spouse or a regular partner was analyzed in a regression analysis by allocating a value of 1 for use and 0 for non-use. Once again, a stepwise regression was run to reduce the large number of

explanatory variables. Results are given in Table 46 and trends pertaining to variables with a statistically significant association with the dependent variable are discussed. The same caution should be taken in interpreting results as mentioned at the previous analysis of condom use.

Respondents with a more positive perception of condoms, with greater access to and acceptance of sources of information on AIDS and of possible influence in assisting behaviour change and who tended to have greater internal locus of control were significantly more inclined to report condom use in casual liaisons.

More males reported condom use which significantly correlated with younger age groups. Black respondents tended to report a significantly lower inclination to condom use than other groups. Significantly fewer residents of the Eastern Cape metropoles and Ciskei reported condom use in non-permanent relationships than in other study areas. There is a significant and positive correlation between a perception of non-risk and condom use in a casual sexual relationship. The latter trend can possibly be ascribed to the fact that respondents who practised safer sex through consistent condom use with casual partners and perceived their permanent partners as not posing a risk as a possible source of HIV infection would regard themselves as not at risk.

TABLE 46
REGRESSION ANALYSIS OF REPORTED USE OF CONDOMS DURING INTERCOURSE WITH A PARTNER WHO IS NOT A SPOUSE OR A REGULAR PARTNER

INDEPENDENT VARIABLES R^2 = 12,7**	COEFFICIENT	PROBABILITY OF EXCEEDANCE
Knowledge of transmission via casual contact	-0,0091	0,1038*
Perceptions regarding condoms	-0,0396	0,0002*
Locus of control	0,0403	0,0067*
Acceptability of multiple sexual partners	0,0322	0,0538
Information sources used	0,0425	0,0043*
Possible influential sources	0,0243	0,0071*
Gender		
Male	0,0613	0,0047*
Female	-0,0613	0,0047*
Age		
13-24	0,0934	0,0071*
25-34	0,0181	0,5647
35-49	-0,0517	0,1633
50+	-0,0598	0,2510

INDEPENDENT VARIABLES R^2 = 12,7**	COEFFICIENT	PROBABILITY OF EXCEEDANCE
Occupation		
Professional	-0,0108	0,8319
Clerical	0,0199	0,6161
Service	0,0384	0,5600
Artisans	0,0003	0,9938
Never employed	-0,0478	0,2195
Group		
whites	-0,0215	0,6734
Asian	0,0535	0,4488
black	-0,1134	0,0056*
"coloured"	0,0814	0,1986
Area	0,1219	0,0671
N-route	0,0081	0,9044
E-route	-0,0504	0,2891
Witwatersrand	0,0278	0,6047
Pretoria and Bop	-0,0092	0,8606
Natal metro	-0,0555	0,7734
KwaZulu	0,0507	0,4289
Cape Town	-0,1396	0,0165*
E-Cape metro and Ciskei	-0,0566	0,5521
Transkei	0,1028	0,2129
OFS		
Access to written sources		
Often	0,0410	0,4228
Seldom	0,0692	0,1514
Never	0,0843	0,0765
N/A	-0,1945	0,1022
Access to TV		
Often	-0,0446	0,1900
Seldom	0,0407	0,2675
Never	-0,0145	0,7443
N/A	0,0184	0,7493
Perceived susceptibility		
No chance	0,0688	0,0296*
Small to moderate	0,0179	0,5772
Big chance	-0,0497	0,3186
Don't know	-0,0370	0,3455

* Significant at 5% level.

** 87,3% of the variation accounted for by variables are not included in this model.

4.6.4 Sexually transmitted diseases: past behaviour

Of all sexually active respondents, only 5 % reported that they themselves or a sexual partner had ever had an STD (see Question 95, Appendix A). Almost a tenth (8 %) of respondents were unsure or refused to answer. Due to the small number of respondents reporting STD exposure, it

was not advisable to do an analysis on responses for the follow-up question (Question 96) which was aimed at assessing whether the concerned parties informed one another of the STD. However, 65 % of these respondents indicated that such a conversation did take place. The rationale for including this question was that a past tendency to discuss a sexually transmitted illness with a partner can possibly be linked to a tendency to also discuss HIV infection.

4.6.5 Reported intentions to change sexual behaviour in response to hearing about AIDS

(i) Quantitative measures

Question 97 inquired: "After hearing about AIDS, did you think it was necessary to change your behaviour?"

More than a third (36 %) of respondents reported intentions to change behaviour while almost two-thirds (63 %) answered negatively. Intentions to change behaviour were analyzed in a regression to uncover those independent variables significantly associated with it. Once again the large number of explanatory variables was reduced by running a stepwise regression. A higher behavioural change intention score was significantly associated with a higher level of correct knowledge about some of the proven means of HIV transmission, a more positive perception of self-efficacy in health promotion (locus of control), better knowledge of STDs, greater contact with social sources of information regarding HIV and AIDS and a higher score for intention to follow the advice of certain sources of information.

As far as the biographical data are concerned, men tended to report intended change more than women, and Afrikaans-speaking individuals were more inclined than the other groups to report not feeling obliged to change their sexual behaviour. There was a significant negative association between age and intended change, with the younger age groups tending to report intended sexual behaviour change more than those 35 years or older. Asians were more inclined to view change as unnecessary while blacks tended to report decisions to try and adapt sexual behaviours in the face of the health threats posed by HIV transmission. Higher tendencies to indicate proposed behaviour change occurred among residents of the Witwatersrand, KwaZulu and the OFS while a tendency to report non-change seems to have been more prevalent among residents of the Eastern-route areas, Natal metropoles, Eastern Cape metropoles and Ciskei. There was also a significant positive association between being sexually active and reporting a perceived need to change behaviour. Respondents who saw themselves as being not at risk were also less inclined to report intended behaviour change. In respect of this particular dependent variable, the explanatory variables in the final model explained 21 % of the observed variation in reported

perceptions of a need to change behaviour. This is regarded as significant in social research.

TABLE 47
REGRESSION ANALYSIS OF REPORTED INTENTIONS TO CHANGE SEXUAL BEHAVIOUR IN RESPONSE TO HEARING ABOUT AIDS

INDEPENDENT VARIABLES R^2 = 20,5**	COEFFICIENT	PROBABILITY OF EXCEEDANCE
Knowledge of transmission via proven means, Subgroup 1	-0,0172	0,0101*
Locus of control	0,0276	0,0001*
Knowledge of STDs	0,0183	0,0317*
Access to social sources	0,0314	0,0001*
Intention to follow advice of information sources	0,0271	0,0001*
Gender		
Male	0,0637	0,0001*
Female	-0,0637	0,0001*
Education		
None-std 2	-0,0472	0,1537
stds 3-5	0,0283	0,2328
stds 6-8	0,0291	0,0635
std 9	0,0221	0,3428
std 10	0,0045	0,8096
after school	-0,0368	0,0971
Language		
English	-0,0177	0,5788
Afrikaans	-0,1246	0,0005*
Nguni	0,0437	0,1116
Sotho	0,0351	0,2615
Other	0,0635	0,0179*
Age		
13-24	0,0646	0,0001*
25-34	0,0592	0,0001*
35-49	-0,0321	0,0338*
50 +	-0,0917	0,0001*
Group		
whites	0,0045	0,8522
Asian	-0,0655	0,0200*
black	0,0885	0,0251*
"coloured"	-0,0275	0,3236

INDEPENDENT VARIABLES R^2 = 20,5**	COEFFICIENT	PROBABILITY OF EXCEEDANCE
Area		
N-route	-0,0180	0,5551
E-route	-0,0635	0,0469*
Witwatersrand	0,0536	0,0221*
Pretoria and Bop	-0,0032	0,8980
Natal metro	-0,0934	0,0002*
KwaZulu	0,1324	0,0259*
Cape Town	-0,0487	0,0651
E-Cape metro and Ciskei	-0,1172	0,0001*
Transkei	0,0480	0,2361
OFS	0,1100	0,0024*
Access to radio		
Often	-0,0044	0,8168
Seldom	0,0298	0,1407
Never	0,0056	0,8185
N/A	-0,0310	0,4908
Has a sexual partner		
Yes	0,0725	0,0001*
No	-0,0725	0,0001*
Perceived susceptibility		
No chance	-0,0392	0,0057*
Small to moderate	0,0289	0,0617
Big chance	0,0062	0,8064
Don't know	0,0041	0,8265

* Significant at 5% level.

** 79,5% of the variation accounted for by variables are not included in this model.

(ii) Qualitative measures

In follow-up questions (see Questions 98, 99 and 100 in Appendix A) respondents were probed on the type of change they thought necessary, the person who influenced the change in behaviour and the reasons for believing no change was called for.

Regarding the subjective norm (i.e. the person who influenced behaviour change), 62 % of the 1908 respondents who indicated a decision to change their sexual behaviour after learning more about AIDS were able to indicate factor or factors which influenced them in their decision making. Most frequently mentioned influencing factors were the mass media (33 %), professional medical care givers (17 %) and friends (10 %). Partners were mentioned by only 6 % of respondents, indicating that communication about HIV protection might not be a well-established practice. It must be borne in mind that 12,5 % of the 1 908 respondents indicated two sources.

The majority (93,6 %) of respondents were able to indicate the type of change they had made. Most frequently mentioned were sticking to one partner (80 %) and using condoms (16 %). Some inappropriate reactions were also mentioned such as douching or washing after intercourse (0,1 %), being afraid (9,5 %) and regular clinic visits (1,6 %). Fourteen per cent of respondents indicated two different ways in which they had changed their former sexual habits.

The 63 % respondents who indicated that they did not feel obliged to change their sexual behaviour after hearing about AIDS gave reasons such as not being at risk due to always being involved in a single-partner relationship (55 %) or being celibate (22 %). Inappropriate answers given were: don't know, unsure or "did nothing", being "careful" (16 %), believing that AIDS did not exist (3 %), or having undertaken a blood test (0,3 %). Respondents who did not perceive change as warranted and who gave such inappropriate reasons are at risk.

4.7 Overall effects of explanatory variables on factors relating to knowledge, attitudes and beliefs

A MANOVA analysis was undertaken in respect of the following factors in the KAPB study as already described above:

- knowledge of transmission via proven means, Subgroup 1;
- knowledge of transmission via proven means, Subgroup 2;
- knowledge of transmission via casual contact;
- perceptions of seriousness or of outcome;
- perceptions regarding social distance;
- acceptability of AIDS education in schools;
- perceptions regarding condoms;
- knowledge of non-prevention via non-barrier methods;
- perceptions of availability of condoms.
- locus of control;
- acceptability of multiple sexual partners;
- knowledge of correct means of protection.

This was done to gain insight into the overall differences in terms of gender, age, education, language, occupation, population group, area, access to printed media, access to television, access to radio, access to other sources and having a sexual partner with regard to knowledge, attitudes and beliefs as described above. The results of the MANOVA are given in Table 8.

TABLE 48
RESULTS OF A MANOVA ANALYSIS IN TERMS OF EXPLANATORY VARIABLES FOR ALL THE KNOWLEDGE, ATTITUDE AND BELIEF MEASURES

SOURCE OF VARIANCE	F-VALUE	DEGREES OF FREEDOM	PROBABILITY OF SIGNIFICANCE
Gender	33,5	1 and 5283	0,0001*
Age	1,90	3 and 5283	0,0009*
Education	6,94	5 and 5283	0,0001*
Language	3,28	4 and 5283	0,0001*
Occupation	1,67	4 and 5283	0,0026*
Population Group	9,28	3 and 5283	0,0001*
Area	12,00	9 and 5283	0,0000*
Access to television	2,39	3 and 5283	0,0001*
Access to radio	2,19	3 and 5283	0,0001*
Access to printed media	3,71	3 and 5283	0,0001*
Access to other sources	2,09	3 and 5283	0,0001*
Sexual partner	5,74	.1 and 5283	0,0001*

* Significant at 5 % level.

It is clear from the results that there are significant overall differences in terms of age, gender, education, population group, area, language, occupation, access to certain sources of information and exposure to sexual intercourse.

5. SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Summary of findings

5.1.1 Findings of other KAPB studies and the current study

In Table 49, findings from a selected number of KAPB studies are summarized. It seems that there are many similarities between the findings of this study among the general population and those undertaken in respect of certain target groups. It must be kept in mind however that the methodology and measuring instruments differed.

TABLE 49
SUMMARY OF FINDINGS OF SELECTED KAPB STUDIES RELATING TO HIV AND AIDS CONDUCTED IN SOUTH AFRICA

Investigation	Sample	Heard of AIDS	Knowledge of transmission	Severity	Threat to community	Prevention	Social distance	Behaviour change	Condom use	Preferred sources of information
Mathews et al. 1990	Black students from four secondary schools in Cape Town townships	91,9 %	Responses revealed some confusion	Can die: 84,4 %	Not seen as an immediate threat	Knowledge: Condoms: 80,1 %; One partner: 2-14%	59 % will not accept PWA as class mate	57,1 % reported a change in behaviour towards preventive measures	11,4 % of sexually active students ever used a condom	44,7 %: friend; 33,5 %: school nurse
Govender et al. 1992	Women attending an inner city family planning clinic in Johannesburg	88,0 %	Many misconceptions	Serious threat, did not perceive themselves at risk	PWA should not be allowed to stay in community	-	68,2 % said PWA should be hospita- lized in isolation wards	-	No condom use	90,9 %: Nursing sister in clinic; 88,6 %: TV; 95,5 %: Radio; 84,4 %: Magazines
Karim et al. 1991	Urban black mothers of teenagers in Lamontville, Durban	100 %	Misconceptions regarding transmission and prevention	All feared AIDS	Concerned. Believed that there were no people in Lamontville with AIDS	Knowledge: Condoms: 97,5 % One partner: 95,9 %	-	-	Never used condoms	91,8 %: Radio; 28,7 %: TV; 5,7 %: Friends
Friedland et al. 1991	Students living in residences of WITS	High level of awareness	High level of knowledge; "misconceptions" regarding transmission	-	-	-	-	-	-	
Ijsselmuiden et al. 1990	Black goldminers of four mines	94,6 %	Substantial knowledge; "misconceptions regarding prevention	Lack of perceptions of personal susceptibility	-	Knowledge: One partner: 49,5 % Use of condoms: 34,2 %	-	-	Always: 24,3 %; Sometimes: 8,3 %; Never: 66,9 %	Media: 38,7 %; Medical staff: 25,4 %; Friends: 16,0 %

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Investigation	Sample	Heard of AIDS	Knowledge of transmission	Severity	Threat to community	Prevention	Social distance	Behaviour change	Condom use	Preferred sources of information
Schlebusch et al. 1991	Health care professionals in university-affiliated teaching general hospital	High level of awareness	High level of kwowledge	-	-	-	16,2 %: PWA should be avoided; 13,6 %: PWA should be hospitalized permanently	-	-	-
Breytenbach et al. 1990	Students living in residences of UOFS	Not aware of the meaning of the abbreviation "AIDS"	Lack of knowledge regarding transmission	Aware of danger	-	-	20,8 %: Will withdraw from PWA	No influence on sexual behaviour	-	Printed media: 72,4 %; Electronic media: 20,0 %
Perkel et al. 1991	Students at the University of the Western Cape	-	Knowledge is generally good; misconception about casual transmission	-	-	-	40 %: People with HIV must be clearly identified; 24 %: PWA must be isolated	30 %: Limited partners	48 %: Never used a condom	-
Robertson 1992	Residential students at UCT	Awareness good	Conceptions regarding modes of transmission	-	Majority see AIDS as threat to the campus community	-	No negative attitudes	30 %: Changed behaviour	38 %: Used condoms	-
Meyer-Weitz & Steyn 1992	Secondary schools in Pretoria, Laudium, Cape Town and Soweto	Awareness improved in experimen-tal schools	Miscon-ceptions oc-curred, but improved in posttest	A more realistic view of seriousness developed after educational intervention	-	Average scores, but improve-ments after ex-posure to information	Afrikaans-speaking pupils were generally more inclined to feelings of social distance	Intention to change as-sociated with better knowledge of transmission, prevention, different attitudes towards multiple sexual partners, positive acceptance of condoms, knowledge of prevention of STDs	Poor awarene as of distributi on points	Majority prefer to receive infor-mation from health personnel

Investigation	Sample	Heard of AIDS	Knowledge of transmission	Severity	Threat to community	Prevention	Social distance	Behaviour change	Condom use	Preferred sources of information
Current	General public in certain at-risk areas	83 %	Average scores for proven means, misconceptions about casual contact	Realistic perceptions of serious- ness of outcome not equal for all subgroups	Other community problems given high priority in spontaneous reporting; 79 % said AIDS poses a threat to their community in structured question	Average scores for knowledge of prevention; Misconceptions exist about ability of non-barrier methods to protect	High scores for social distance	38 % indicated behaviour change; however, some adaptations inappropriate	Low levels of use (22-42 %); Use associated with more positive perceptions of condoms	-

- not measured or reported on

5.1.2 Findings of the current study in terms of statistically significant differences in explanatory variables

Observed subgroup differences are reported briefly below and can be used to help guide targeted AIDS education and information programmes for the different target groups.

(a) Gender differences

Men tended to be less informed about the inability of the contraceptive pill or injection to protect against HIV transmission. Women on the other hand seems to have had a more positive perception of condom use and availability than men. Men were more inclined to be tolerant of multi-partner sexual relationships than women and tended to regard AIDS as a gay disease. Men had greater internal locus of control as far as health matters are concerned. These observed gender differences are probably linked to sex-role perceptions stemming from particular socialization processes and life experiences, e.g. men feeling more able to play an active role in maintaining their health.

(b) Age group differences

Older age groups tended to be better informed about means of prevention. Younger groups tended to have a more realistic understanding of the seriousness of HIV infection and of the probable outcome. However, they tended to have greater feelings of distance from HIV infected persons or PWAs. Older age groups tended to indicate perceptions of greater reliance on professional care givers in health promotive issues. The age group 25 to 34 years tended to perceive themselves as at risk of HIV infection and should therefore be regarded as a special target group. However, those 35 years and older tended not to report behaviour change after learning about AIDS to the same extent as the younger groups. Influencing behaviour change in respect of older adults therefore will be more difficult. Younger people tended to prefer interpersonal communication as medium for AIDS education and information dissemination. Multi-partner sexual relationships and casual sexual contacts were reported to a greater extent by the younger age groups.

(c) Language differences

Sotho-speaking respondents were more inclined to be less informed about HIV transmission via the sexual act. Nguni-speaking people were less informed about STDs and how to prevent them and were also less aware of the seriousness of HIV infection. They also had lower scores for internal locus of control in health matters. However, this group were less inclined to assume that AIDS mainly affects gay people. The Nguni-speaking people tended to have a greater preference for the

radio as medium in AIDS education.

English- and Afrikaans-speaking people tended to be more positive regarding the use of condoms but used personal sources of information to a lesser degree than the other language groups. English-speaking respondents were inclined to find multiple sexual partners more acceptable.

(d) Area differences

The Orange Free State residents were less informed about HIV transmission via proven means and the inability of non-barrier methods to provide protection against HIV infection. KwaZulu residents tended to be better informed about transmission during sexual intercourse and via casual contact and about STDs, but were less positive about condom use. They tended to rely on social sources of information regarding AIDS.

Residents from Transkei were less informed about transmission via casual contact, about STDs and about means of prevention. Both the KwaZulu and Transkei areas are at risk in terms of misconceptions that the pill or injection can prevent HIV transmission. Transkei, the Orange Free State, KwaZulu and the Witwatersrand areas also seems to emerge as areas where there existed a need to instill a more realistic view of the seriousness of HIV infection and its probable outcome. Residents of the major urban and metropolitan areas tended to regard AIDS as mainly affecting gay people. People living outside the homeland areas had more positive perceptions of locus of control in health. Residents of the Eastern-route areas mentioned few sources of influence for possible behaviour change, while those in KwaZulu and Cape Town listed more.

Reported condom use was low in the Ciskei as was reported behaviour change.

(e) Educational level differences

Higher levels of education were associated with better knowledge concerning transmission via casual contact and concerning means of prevention (both correct and incorrect means) as well as with a better understanding of the seriousness of HIV infection, a more positive perception regarding condom use and availability. However, individuals with higher levels of education tended to regard AIDS as a gay disease to a greater extent than those with lower educational qualifications. Higher educational qualifications were also associated with greater use of social sources of information on AIDS.

Respondents with lower educational levels tended more to spontaneously report inappropriate

means of protection against HIV than higher levels and had greater feelings of social distance from HIV infected persons and PWAs. They also felt less able to contribute to their own health status.

Those with lower educational levels tended to prefer interpersonal communication in AIDS education.

(f) Population group differences

Black respondents tended to have less correct knowledge about transmission of HIV via proven means (both sexual and other proven means). Black and Asian respondents were less informed of transmission via sexual contact and via casual contact. Black respondents seemed to report some inappropriate means of protection against HIV and also tended to hold a less realistic view regarding the seriousness of HIV infection. "Coloureds", Asians and whites tended to be more positive towards condom use than blacks and had more positive perceptions of self-efficacy in respect of health. Asians tended to find multiple sexual relationships unacceptable. This should be taken into account when developing messages for this specific target group. "Coloureds" tended not to regard AIDS as mainly affecting gay people. Black and coloured respondents tended to perceive themselves as being at risk of HIV infection. Black respondents tended to discuss AIDS more with other personal sources of information and also to prefer interpersonal communication.

The above-mentioned differences in terms of educational level and group must be seen in terms of socio-economic factors. In South Africa black people are (due to historical forces) the most disadvantaged group in terms of infant mortality, life expectancy, household income, education and other indices of socio-economic welfare. Judith Head (1992:18) elaborated on the well-known link between conditions of deprivation and poverty and the prevalence of disease such as tuberculosis, malaria, bilharzia, cholera, typhoid, measles, malnutrition and diarrhoea which can all weaken the individual's immune system and break down the ability to ward off new infections. This can lead to recurrent exposures to "immunosuppressant conditions" which render the person at risk more vulnerable to HIV infection. She made reference to the work of Packard and Epstein who postulated that the development of AIDS would be much faster in an HIV infected person whose immune system has already been compromised than in an infected person who is otherwise at a more advantageous position as far as his/her own immune system is concerned.

Whereas Head draw conclusions about a direct link between poverty (or class) and the spread of HIV, a similar link can be drawn between knowledge, attitudes, beliefs and behaviours in respect of HIV and AIDS on the one hand and poverty on the other. In fact, many of the independent variables (group, educational level, area, occupation etc.) are interrelated although the analysis

focused mainly on major effects. The special vulnerability of groups who are socio-economically disadvantaged in terms of needs for and access to information must receive special attention in AIDS education and information in this country. The socio-economic upliftment of the poor can go a long way to improve people's access to appropriate information in order to become self-efficient in maintaining their health. Moreover, perceptions will start changing in accordance with perceptions of self-efficacy.

(g) Occupation group differences

People in so-called white collar occupations tended to have a more positive perception of condom use while the so-called blue collar workers were less inclined to regard AIDS as a "gay disease". The white collar groups tended to hold greater perceptions of self-efficacy in health.

(h) Differences accountable to differential access to sources of information about AIDS

Frequent access to the television as a source of information was associated with better knowledge of HIV transmission via proven means, and a more positive perception of the availability of condoms. Regular access to the radio seems to be significantly associated with greater condom use.

Those with more access to the printed media tended to be better informed about the fact that contraceptive methods such as the pill or injection could not provide protection against HIV transmission. The printed media in general seems to have been instrumental in clearing up misconceptions about inappropriate means of protection and in creating more positive perceptions regarding the availability of condoms. People who used printed media tended to hold a more positive view of self-efficacy in health promotion and to mention more sources of possible influence in their lives as far as protection against HIV infection is concerned. Access to the printed media closely correlated with literacy. It must be kept in mind, however, that people who cannot read, often ask their children, friends or other relatives to read important documents to them. (See Swart et al. 1993.)

All the sources mentioned above seems to have been of use in creating a better awareness of the seriousness of HIV infection, its probable outcome, awareness of self-efficacy in health maintenance and the tendency to discuss AIDS with other personal sources.

(i) Differences in terms of exposure to sexual contact

Respondents with sexual partners were better informed about transmission via casual contact and about the correct means of prevention. However, they were less positive about condom use than those not sexually active. Those with sexual partners were more tolerant towards multi-partner sexual relationships and tended more to view themselves as being at risk of HIV infection than those who were celibate.

5.2 Conclusions and recommendations

5.2.1 Knowledge about HIV and AIDS

Knowledge scores were average to high, but there was some confusion among the general public, especially concerning **casual contact**. From the spontaneous mention of means of transmission it is clear that the fact and threat of **mother-to-child transmission** were not well established.

Knowledge of **STDs** was not very high, especially in respect of means of prevention. Younger target groups seem to have had a great need for more information regarding this. Efforts should be made to address the powerful stigma associated with STDs and to encourage regular self-examination for VD in the absence of symptoms.

There were still large proportions of the public who perceived the **contraceptive** benefits of the pill and the injection as extending to provide protection against STDs and HIV.

Some respondents mentioned **inappropriate means of protection** against HIV transmission such as contraceptives, "clean living", visiting doctors or health care facilities or traditional healers, being religious, wearing gloves and avoiding homosexual or bisexual intercourse. All of these misconceptions should be dealt with individually in terms of targeted messages. Knowledge factors, however, appear to have been less **influential** over safer sex behaviour than attitudinal factors. Thus in addition to the transferral of knowledge, the creation and maintenance of a high degree of awareness and dispelling misconceptions, AIDS education should also be directed at **reinforcing health motives**.

Overall, awareness of AIDS seems to have been at a high level, but with a mixture of appropriate and inappropriate knowledge about HIV and AIDS in terms of transmission, nature of the disease, seriousness, prevention and cure existing in the minds of the public. As far as the campaign is

concerned, awareness was therefore established, but more informative messages should be targeted at different groupings in the future.

5.2.2 Perceptions of seriousness

People with **lower educational** levels emerged as a group in which perceptions of the seriousness of HIV infection and AIDS were not well established. This might be ascribed to a link with other indices (i.e. apart from education) of socio-economic disadvantage and with probable associated perceptions that other (more basic) needs were more urgent and threatening than the "invisible" virus.

A process of counselling and education is thus called for which will help people to feel a **more realistic concern about all STDs**, including HIV, and which will enable them to take effective action to prevent transmission.

Large proportions spontaneously indicated **death as an outcome of HIV infection**. While the very real threat of HIV must be well established in the perceptions of target groups, the association with death might also encourage other less desirable reactions such as denial, repression, stigmatization and even isolation of the HIV infected person, blame, feelings of helplessness, fatalism or passivity. People are motivated to change their behaviour permanently when they find other gratifications stemming from such change, for instance pleasure, a sense of power or of being in control or a sense of being responsible and caring towards loved ones.

5.2.3 Condoms

Sexually active people, especially sexually active males, had negative perceptions regarding condom use. Positive perceptions proved to be **instrumental in eventual use**, even to the exclusion of knowledge regarding HIV transmission or prevention.

There was some confusion about the actual **availability** of condoms, although positive perceptions regarding accessibility and acceptability were better established in urban centres.

Partners were often not instrumental in helping to adopt condom use as a regular way of life. However, use of condoms in casual sexual affairs was often encouraged by improved contact with social or interpersonal sources of information.

Both men and women should be targeted in efforts to promote condom use, so as not to reinforce gender role stereotypes.

Perceptions regarding condoms must be addressed. A study by Swart et al. (1993) uncovered reasons for non-use such as condom use being associated with promiscuous affairs, fear of the condom bursting and mistrust of the condom as a contraceptive method which made it inappropriate for use when there was a need to prove fertility. The same study also found that problems existed in the availability of condoms at family-planning clinics and other outlets providing free condoms. In fact, when the research team visited supply points in a specific district, condom stock was depleted.

There thus seems to be a need for the urgent provision of **more supply points** for the distribution of free or low-priced condoms.

From the study by Swart et al. (1993) it seems that the traditional **family-planning clinic points** (i.e. fixed and mobile clinics) were regarded by large proportions of males as the **most accessible supply points** for free condoms. However, only a small group could be reached in this way. Moreover, the men asked for the method at these points out of their own free will and were not specifically encouraged to do so. Counselling and awareness campaigns could help make carrying and provision of condoms by women more acceptable. David Wilson (AIDS Bulletin, 1993:9) also points out that by targeting condom use promotion for casual and at-risk sexual unions specifically, 60 to 80 times as many cases of HIV can be prevented than by a strategy without such a specific aim. It therefore seems that providing free condoms where such casual or at-risk encounters might be initiated (bars, brothels, restaurants etc.) can have a great impact.

5.2.4 Support for behavioural change

The two sexes differed significantly in their perceptions about the acceptability of condoms and about the ability of the pill and injections to provide barrier protection. This difference, together with the infrequent mention of partner support for behavioural change, seems to indicate that open discussion between sexual partners about sexual matters, the need for protection against HIV and STD in a sexual relationship and contraception was ill established.

Social support, however, proved to be an important variable in reported behavioural change and in more positive perceptions of self-efficacy. While the programme should thus encourage social support for people to adapt their sexual behaviours in the light of the threat of AIDS, it should also

focus on efforts to improve negotiating skills in **individual sexual relationships** as far as communication regarding protection is concerned.

In situations where there are real or perceived **inequalities in negotiation** (e.g. women seen as passive partners), the best strategy will be to give the same health education messages about protection to both sexes. In planning these messages, cognisance should be taken of the link between **risk-taking** in health and perceived or real lack of **empowerment**. Furthermore, partners at different levels of social power should be helped to gain information and skills necessary to optimize their control over the situation.

In providing social support, priority should be given to the provision of **models** of desired attributes and lifestyles which exhibit the kind of behaviours advocated in safer sex campaigns. This can be done by providing popular characters who display maturity, popularity, sophistication etc. as models in "soap" productions on radio, advertisements, comics, television , drama or stage plays.

Messages regarding **self-efficacy** in health or safer sexual habits as being **responsible**, desirable and indicative of a **caring** and **loving** orientation, should be carried by different media and should find support in different social sectors. In this way the **social environment** can be organized so that people perceived as lacking power have opportunities to realize desirable roles and socially valued actions without resorting to risky health practices.

5.2.5 Self-efficacy in health

Positive perceptions regarding self-efficacy in maintaining one's health seems to have been restricted to the more advantaged social groupings.

However, a variable unrelated to socio-economic class, namely increased utilization of **social sources of information** and of possible influence in behaviour change impacted positively on perceptions of self-efficacy.

The need to address the **socio-economic setting of HIV and AIDS** in this country in a comprehensive manner through a committed **primary health care** approach to health has already been mentioned and is elaborated on below. However, it also seems that encouraging the establishment of **support networks** is an important building block in a supportive programme aimed at effecting pertinent health-related actions. Consonant with the premises of the health belief model as described in section 2, this would also entail strengthening beliefs in the **desirability and social acceptability** of safer sex behaviours.

As far as the socio-economic setting of AIDS-related issues is concerned, it has already been mentioned that socially disadvantaged people might find it difficult to adopt a notion of prevention, a realistic perception of seriousness and a positive approach to self-efficacy in health due to the pressing urgency of other matters of daily survival. What is called for is thus a strategy which will give disadvantaged people **hope** that they can contribute to curbing disease and hope that there is a strong central body of concerned and committed people who care and can strengthen their actions through providing resources and skills where these are lacking in a community - in other words a primary health care approach.

Following the principles of a primary health care approach, AIDS education will encourage **participation** by the community and it will be **responsive to local needs**. Risk groups are not only targeted, but **involved** in bringing about the necessary implementation and intervention strategies. Little change will come about by care givers or educators telling people how to control their behaviour. Significant change will primarily be effected by people being taught the issues and choices so as to **enable** them to control their behaviour and make the right choices. This type of approach will aim at **transferring the responsibility for prevention and eventually for care** from health care personnel to individuals, families and the community. This of course involves a process of **community AIDS counselling** which makes use of **volunteer community counsellors**. Such a strategy will also help to address the **urban bias** in AIDS education.

AIDS counselling as part of a **community development** strategy means that **integrated health and development programmes** must address the socio-economic roots of high risk sexual behaviour (prostitution, unprotected intercourse by young people due to inadequate planning and provision of leisure time activities, the subservient role of women, instability of family life etc.) through **income-generating** and upliftment programmes.

Planning, evaluating and executing such programmes need strong political commitment and consistent evaluation and re-thinking. Political leaders need to be motivated to take a personal interest in the AIDS programmes of this country and leaders in all walks of life must be mobilized. Also needed is the encouragement of synergistic support from all the relevant sectors to effect and strengthen behaviour change.

5.2.6 Perceptions of social distance

There were deep-rooted perceptions of social distance from people infected with HIV and PWAs, signalling a very real need for awareness campaigns to give priority to the establishment of **a caring attitude** towards those infected or directly affected. These perceptions also tended to spill over

into **fears** about one's infected state. Although **caring for a relative or a loved one** with AIDS was seen as a responsibility, there were fears about possible infection and feelings of not being informed well enough to cope with the particular needs of a PWA.

In our changing society, **human rights issues** are increasingly receiving attention. Through the **activism** of concerned groups, role players are asked to address issues which seriously impinge on **the rights of HIV infected people and PWAs**. Examples are informed consent for HIV testing, addressing pre-employment testing, rethinking criminal law procedures relating to prostitution and homosexuality, medical aid cover for AIDS-specific medicines and exclusions and restrictions in terms of insurance. These issues are still debated, but creating **awareness** among people at different levels of society by seriously grappling with these issues in a concerned way, can help address fears and stigma. Sensationalizing the negative aspects of these issues, however, will only increase perceptions of social distance. In this respect, the **media** must be seen as an important role player and must be encouraged to act **responsibly**. To do so, however, the media must have **access** to **relevant** information which is communicated to them at regular intervals and with the necessary **speed** and accuracy. In addition, **health care professionals, CHWs and FPAs** must be seen and heard as **advocates** against the rejection of those infected with HIV and advocates for the pressing needs in sexual health education and the alleviation of poverty. These role players have to take a more prominent stance if they want to encourage counselling, testing and advice seeking by those at risk. Responses from this study indicated mistrust by some people that health care professionals will honour the right to confidentiality of those who tested positive for antibodies.

In general, the national **family-planning infrastructure** of this country already has access to an audience of women of reproductive age and adolescents. The role of FPA and FP nursing personnel in terms of education for the prevention of HIV transmission must therefore also be reconsidered. They have a great task in dispelling myths about the ineffectiveness of certain contraceptive methods to provide protection against STDs and HIV, and in teaching target groups skills in **negotiating** protection in a sexual relationship. As far as the latter matter is concerned, it might be necessary to "go back to the drawing board" since many a woman still keeps her contraceptive use from her male partner and thus does not feel able to discuss these matters with him.

Provision of family-planning services and advice must thus purposefully aim at providing integrated information about reproductive health, HIV, pregnancy, STDs, breast-feeding, perinatal transmission and contraception. Integration of services which are currently run separately - ATICs, STD clinics and FP and PHC service points should be investigated for viability. The introduction of protective contraceptive methods for women (e.g. female condom or vaginal virucidal creams) in the range

of clinic methods currently available must be investigated. Further investigation is needed with regard to special risks for women using IUDs and associated pelvic inflammatory disease, increased bleeding and infections.

5.2.7 The role of the different communication media

In conclusion, certain comments are made relating to the role of the different communication media in addressing the above-mentioned needs in terms of knowledge, perceptions and motivation for change.

The differential roles of the mass media have been described in section 5.1 and they play an important part. However, programmes aimed at encouraging sustained interpersonal communication are of equal importance. Intensified peer counselling and training of community volunteers are all possible strategies.

Awareness, information and education campaigns carried by the **electronic media** (radio and television) and the **printed media** can be supplemented by other means such as **posters, murals and advertisements on taxis and buses** which all act to **reinforce** the messages. These media have already been used in South African programmes, but the messages can be adapted to also address needs uncovered by the current research. **Additional strategies** are to attach AIDS education pamphlets to monthly electricity and water bills or to pay cheques of public servants. **Employers** from different sectors of the economy can be approached to undertake similar strategies. The mass media campaign has to be supplemented by intersectoral initiatives involving national and local structures and voluntary agencies.

Media campaigns need to be evaluated and developed in consultation with target groups. All messages must be pretested.

The awareness, information and education campaign must be seen as a process aimed at effective health promotion guided by sound monitoring and evaluation.

5.2.8 Further research needs

This study has been an attempt at evaluating the level of AIDS awareness, knowledge, perceptions and related social change in the broader South African population. It should not be seen however as a measurement of the "success" of AIDS education in this country. The promotion of health (and this includes sexual health issues) requires deep-rooted social change which takes time.

Constant evaluation and creative thinking are called for to adapt sexual health education to the needs of individuals at different levels in our society.

Some specific research needs to be considered, are:

(i) Assessing in what kind of sexual relationship condom use is most acceptable and investigating possibilities for generalizing these perceptions to everyday use in all relationships where risk of transmission might be present;

(ii) Investigating sexual behaviour patterns throughout critical life stages and how these influence people's risk to HIV infection;

(iii) Determining local gender-power relationships which have direct bearing upon the ability to negotiate in sexual encounters and in projections;

(iv) Research directed at determining which barriers exist in equal participation in sexual decision making by male and female partners in decisions to protect themselves and their unborn children from HIV transmission;

(v) Follow-up KAPB studies to monitor shifts in awareness, knowledge, perceptions and behaviour.

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APPENDIX A

AIDS KAPB STUDY, 1992

PERCENTAGE DISTRIBUTION OF RESPONSES TO QUESTIONS IN THE QUESTIONNAIRE

At the following question numbers, the given percentages will add up to more than 100 % because in some case more than 1 response from the interviewee were coded. In these instances, codes for the "don't know" or "unintelligible" responses were of course only allocated once and two similar responses by the same interviewee were only coded once. The question numbers to which this apply, are Q10, Q17, Q32, Q33, Q39b, Q41, Q50, Q53a, b, c and d, Q85, Q87, Q90a, b and c, Q98, Q99 and Q100.

Population group	Whites	22.0	
	Asians	8.0	
	Blacks	62.4	
	Coloureds	7.5	N = 5360
Area	A	7.5	
(a) Development region	B	8.1	
	D	8.7	
	E	20.1	
	F	7.9	
	G	7.1	
	H	25.4	
	TRANSKEI	3.9	
	BOPHUTHATSWANA	2.4	
	VENDA	0.9	
	CISKEI	3.4	N = 5360

(b) Planning region	6	0.1	
	8	0.0	
	21	1.6	
	25	5.0	
	26	2.4	
	28	2.5	
	30	4.0	
	31	4.0	
	39	12.0	
	40	7.1	
	41	8.5	
	42	25.4	
	44	1.5	
	"Homelands"	25.8	N = 5360
(c) Type of area	Metropolitan regions	57.1	
	Non-metropolitan regions	17.2	
	"Homelands"	25.8	N = 5360
(d) Type of area	Northern route from Zimbabwe	8.0	
	Eastern route from Swaziland/Mozambique	7.9	
	Witwatersrand	15.3	
	Pretoria and nearby districts	12.5	
	Natal metropolitan areas	16.1	
	KwaZulu	4.0	
	Cape Town and nearby districts	12.1	
	Eastern Cape metros and Ciskei	12,2	
	Transkei	3.9	
	Orange Free State	8.1	N = 5360

1	**Sex of respondent**	Male	49.6	
		Female	50.4	N = 5360
2	Do you consider this place to be your home?	Yes	91.3	
		No	8.7	N = 5360
	IF No: Are you currently staying here for employment reasons or for a visit?	Employment	48.6	
		Visit	26.9	
		Other	24.5	N = 465
	IF Yes: How often do you visit your home?	Daily	18.3	
		Weekly	31.2	
		Monthly	33.3	
		Less than monthly	17.2	N = 465
3	How old are you? (Probe for best estimate.)	< 20	16.3	
		20-29	35.6	
		30-39	23.8	
		40-49	13.8	
		50-60	10.6	N = 5360
4	What is your highest educational level?	No school	4.3	
		Std 2 and lower	3.7	
		Std 3 - 5	12.9	
		Std 6 - 8	33.3	
		Std 9	10.2	
		Std 10	20.8	
		Higher than std. 10	14.3	
		Refusal	0.4	N = 5360
5	What is your home language?	English	21.8	
		Afrikaans	16.3	
		Zulu	17.7	
		Tswana	3.8	
		Tsonga	1.2	
		Ndebele	1.0	
		Northern Sotho	6.1	
		Xhosa	17.7	
		Other	14.3	N = 5360
6	Do you understand English?	Yes	88.4	
		No	11.6	N = 5360
7	Can you read English?	Yes	86.3	
		No	13.7	N = 4739

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8	Are you presently ... Employed (full time)	40.9	
	Employed (part time)	6.0	
	Unemployed (including unfit for work)	18.6	
	Housewife	11.4	
	Student	21.1	
	Pensioner	1.9	N=5360
9	Only if respondent was ever employed: What kind of work do you normally do?		
	Professional, semi-professional, managerial	11.6	
	Clerical,sales, transport, communication	19.1	
	Service workers	5.3	
	Artisans, apprentices, production workers	24.3	
	Never economically active	39.7	N=5360
10	What do you consider to be the most serious problems in your community? (Probe general and health problems)		
	Don't know	16.5	
	Economic problems/poverty	24.3	
	Violence/crime	25.4	
	Infrastructural problems	27.0	
	Substance abuse	6.5	
	Health education	6.7	
	Promiscuity	3.4	
	AIDS	7.6	
	TB or other endemic diseases	9.7	
	Too many problems/Many problems	0.1	N=5360 1463 respondents gave more than one answer

11	Have you ever heard about HIV?	Yes 82.9	No 15.6	Don't know 1.5	N=5360
12	Do you believe that there really is something like AIDS/AIDS virus?	Yes 87.0	No 8.2	Don't know 4.8	N=5360
13	Do you think AIDS poses a serious threat to your community?	Yes 78.8	No 12.7	Don't know 8.5	N=5360
14	Can doctors cure AIDS/AIDS virus?	Yes 15.5	No 68.2	Don't know 16.3	N=5360
15	Can traditional healers cure AIDS/AIDS virus?	Yes 13.6	No 66.7	Don't know 19.7	N=5360
16	Is there a vaccine (an injection) against AIDS/AIDS virus?	Yes 11.7	No 66.9	Don't know 21.4	N=5360

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17	How is AIDS transmitted from one person to another?				
	Don't know	4.9			
	Sleeping around, many partners	90.3			
	IV drug use	5.4			
	Maternal transmission	0.2			
	Blood, blood products	21.6			
	Blades, other utensils	0.5			
	Casual contact	3.5			
	Insects, dog bites	0.1			
	Homo/ bisexual relationship	1.5			N = 5360
	Other	0.2			1505 respondents gave more than 1 answer
18	Do you think one can get AIDS/AIDS virus by having sex with someone who has AIDS or the AIDS virus?	Yes 96.3	No 1.2	Don't know 2.5	N = 5360
19	Do you think it is possible to get AIDS or the AIDS virus when sharing eating utensils (spoons, forks, etc.) with a person who has AIDS/AIDS virus?	Yes 20.5	No 69.4	Don't know 10.1	N = 5360
20	Can one get AIDS/AIDS virus through receiving blood from a person who has AIDS/AIDS virus?	Yes 91.9	No 4.2	Don't know 3.9	N = 5360
21	Is it true that one can get AIDS/AIDS virus by using the same injection needle/syringe that was used by a person with AIDS/AIDS virus?	Yes 89.3	No 5.1	Don't know 5.6	N = 5360
22	Can one get AIDS/AIDS virus from insect bites for example from mosquitoes?	Yes 33.5	No 49.0	Don't know 17.5	N = 5360
23	Do you think it is possible that an unborn baby can get the AIDS virus from his/her mother who has the AIDS virus?	Yes 92.6	No 2.6	Don't know 4.8	N = 5360
24	Do you think it is likely that a person with many casual sexual partners will get the AIDS virus?	Yes 92.5	No 3.8	Don't know 3.7	N = 5360
25	Do you think it is possible to get the AIDS virus when someone with AIDS/AIDS virus coughs, or sneezes on one?	Yes 18.8	No 68.3	Don't know 12.8	N = 5360
26	Is it possible to take care of a family member with AIDS/AIDS virus without getting the AIDS virus oneself?	Yes 64.1	No 26.0	Don't know 9.9	N = 5360

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27	**Is it true that there is a greater risk of getting the AIDS virus when having sex while the woman is menstruating?**	**Yes** 46.1	**No** 25.8	**Don't know** 28.1	N=5360
28	Through which bodily fluids can the AIDS virus be transmitted during sexual intercourse?	Yes	No	Don't know	
	Is it through contact with vaginal fluids?	77.7	8.4	13.9	N=5360
	Is it through contact with perspiration (sweat)?	14.5	70.2	15.3	N=5360
	Is it through contact with semen?	73.5	10.9	15.6	N=5360
	Is it through contact with saliva (spit)?	27.5	57.1	15.4	N=5360
29	Have you ever heard of sexually transmitted diseases/venereal diseases (VD)?	Yes 78.3	No 21.7		N=5360
30	**IF Yes AT Q29**: Is it true that someone who suffers from sexually transmitted diseases is more likely to get AIDS/ AIDS virus?	Yes 75.2	No 10.7	Don't know 14.1	N=4199
31	**IF Yes AT Q29**: Can the spread of sexually transmitted diseases/STD/VD be prevented?	Yes	No	Don't know	
	By use of medicine?	58.7	31.1	10.2	N=4199
	Through injections?	61.0	28.1	10.8	N=4199
	By the use of a condom during sex?	86.9	6.4	6.8	N=4199

32	**NB FIELDWORKER: ASK ALL RESPONDENTS!** What would you do to protect yourself from getting AIDS/AIDS virus?		
	Don't know	6.3	
	One partner	59.0	
	No sex with HIV partner	0.3	
	Celibacy	6.1	
	Condom	38.1	
	Sex history of partner(s)	2.0	
	Avoid contact with blood/transfusion	2.1	
	Be informed	0.4	
	Avoid PWA	1.0	
	No IV drug use	1.6	
	Healthy/clean living	1.7	
	Contraceptives (not barriers)	0.5	
	Doctor	1.0	
	Medical check-ups	1.5	
	Blades/toothbrushes/toilets not shared	0.4	
	Religion	0.3	
	Clinic visits	0.4	
	Leave area in which PWA lives	0.02	
	Traditional healers	0.5	
	AIDS does not exist	0.2	N = 5360
	Nothing will help	0.5	1198 respondents gave 2 answers
	Gloves	0.3	114 respondents gave 3 answers
	Avoid homo/bisexual sexual contact/ sodomy	0.2	
33	What do you think will happen to a person who has contracted the AIDS virus?		
	Don't know	5.2	
	Symptoms	9.4	
	Illness	4.7	
	Always ill	1.3	
	Die	86.1	
	Suffering	1.5	
	Infectious	1.6	
	Nothing	0.2	
	Need treatment	0.5	N = 5360
	Lose job/status	0.02	557 respondents gave more than 1 answer

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34	Can a person have the AIDS virus for many years without becoming ill?	Yes 68.4	No 21.2	Don't know 10.4	N=5360
35	Do you think that a person who is infected with the AIDS virus but who feels and appears healthy can infect another person?	Yes 81.6	No 11.2	Don't know 7.3	N=5360
36	Do people with AIDS get other diseases more easily?	Yes 79.6	No 5.1	Don't know 15.3	N=5360
37	Do you think a blood test can show whether someone has AIDS/AIDS virus?	Yes 93.1	No 3.0	Don't know 3.9	N=5360
38	Would you be willing to take a blood test if you thought that you might have AIDS/AIDS virus?	Yes 88.0	No 9.3	Don't know 2.8	N=5360
39a	Do you think that you will hide the fact if you had AIDS?	Yes 22.2	No 66.8	Don't know 11.1	N=5360
39b	IF Yes AT Q39a: Why do you say so?	Unintelligible		12.3	
		Others will be afraid		28.5	
		Others will be ashamed		55.2	
		Will regard me as homosexual		0.3	
		Will regard me as a prostitute		3.4	
		Fatalism		0.5	
		Revenge		1.9	
		Privacy loss		16.9	
		Lose job		0.4	N=1188
		Stigmatization		0.6	237 respondents gave more than 1 answer
40	Do you think that other people would avoid you if you had AIDS?	Yes 67.9	No 18.5	Don't know 13.6	N=5360

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41	IF Yes AT Q40: Why do you say so?	Absurd		3.4	
		Others will be afraid		92.5	
		Others will be ashamed		11.7	
		Will regard me as homosexual		0.2	
		Will regard me as a prostitute		1.2	
		Fatalism		0.0	
		Hospitalize		0.1	
		No sex		0.1	
		Stigma		0.4	N = 3638
		Others		0.0	348 respondents gave more than 1 answer
42	Should someone who has AIDS/AIDS virus be isolated (kept apart from others)?	Yes 36.9	No 58.4	Don't know 4.7	N = 5360
43	Do you think people who are infected with the AIDS virus should be blamed for their own infection?	Yes 31.3	No 59.2	Don't know 9.5	N = 5360
44	If a family member has been infected with the AIDS virus will you be ashamed of him/her?	Yes 38.1	No 55.7	Don't know 6.2	N = 5360
45	Will you remain friends with a person who has been infected with the AIDS virus?	Yes 62.1	No 31.1	Don't know 6.8	N = 5360
46	Should people who are infected with the AIDS virus be made to resign from their jobs?	Yes 27.3	No 64.7	Don't know 7.9	N = 5360
47	Would you be willing to work with someone who has AIDS/AIDS virus?	Yes 59.3	No 34.4	Don't know 6.3	N = 5360

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48	**Should children who are infected with the AIDS virus be allowed to go to school with children who are not infected with the AIDS virus?**	Yes 49.4	No 43.4	Don't know 7.2	N = 5360
49	**Should people from other countries who are infected with AIDS/AIDS virus be allowed to visit South Africa?**	Yes 27.2	No 66.3	Don't know 6.5	N = 5360
50	Some people say AIDS is a "white disease" and some say it is a "black disease". What do you say?	Don't know		10.6	
		Black disease		6.5	
		White disease		22.2	
		Whites from blacks		0.3	
		Blacks from whites		0.8	
		Everyone		58.0	
		AIDS does not exist		0.3	
		Asians/Chinese		0.1	N = 5360
		Overseas		2.0	75 respondents gave more than 1 answer
51	Do you think that AIDS is mainly a "gay disease/male homosexual disease"?	Yes 33.4	No 46.7	Don't know 19.9	N = 5360
52	Do you think there is a chance that you might get AIDS? Would you say that you have a	no chance?		43.7	
		a small chance?		24.7	
		a moderate chance?		6.0	
		a big chance?		6.1	
		do not know		19.5	N = 5360

53	IF "No CHANCE" Reasons given..	Don't know	5.6	
		Safe sex	64.1	
		No drug use	1.5	
		No sex	16.8	
		Condom use	10.0	
		Avoid PWA	1.8	
		Heterosexual	0.3	
		Doctor/medical advice/medicine	2.3	
		Avoid blood transfusion/ contact with blood	2.3	N = 2340
		Breast feeding	0.1	112 respondents gave more than one answer
53b	IF "SMALL OR MODERATE CHANCE" Reasons given..	Don't know	7.5	
		Safe sex	12.4	
		No drug use	2.3	
		No sex	2.4	
		Use condoms	5.6	
		Avoid PWA	0.6	
		Heterosexual	0.4	
		Doctor/medicine	0.8	
		Avoid blood transfusion/blood products	29.4	
		Chance exists due to exposure to rape/casual sexual contact/sexual history of partner not known	44.9	N = 1648 103 respondents gave more than 1 answer

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53c	**IF "BIG CHANCE"** Reasons given...	Don't know		7.9	
		Many partners		17.6	
		Partner(s) with AIDS		0.3	
		Partner has many other partners		11.9	
		Uninformed		52.3	
		Share utensils (blades/tooth-brushes)		2.4	
		No condom use		4.9	
		Has AIDS		0.6	
		Blood transfusion/con-tact with blood		6.4	
		Drinking behaviour puts person at risk		0.9	N = 329 17 respondents gave more than 1 answer
53d	**IF "Don't know"** Reasons given ...	Don't know		30.2	
		Uninformed		11.5	
		Never tested		3.7	
		Partner/self has AIDS		5.1	
		Rape/unknown sexual history of partner/casual sex		29.7	
		Share utensils		0.3	
		Never used condoms		1.2	
		Blood transfusion/con-tact with blood		13.3	
		Has drinking problem		0.5	
		Celibacy		6.9	N = 1043 25 respondents gave more than 1 answer
54	In a sexual relationship who do you think should be responsible for protection against getting the AIDS virus?	Male		12.5	
		Female		4.6	
		Both		79.3	
		No one		0.8	
		Don't know		2.8	N = 5360
55	Do you find it acceptable (OK) for a man to have more than one sexual partner, as long as it is more than a month apart?	Yes	No	Don't know	
		9.8	86.5	3.6	N = 5360
56	Do you find it acceptable (OK) for a woman to have more than one sexual partner, as long as it is more than a month apart?	Yes	No	Don't know	
		5.6	91.2	3.2	N = 5360

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There are many opinions about ways to protect oneself against the AIDS virus. Please give me your opinion on the following questions even if the practices are not personally applicable.					
57	Do you believe that using a condom when having sex can protect one from getting AIDS/AIDS virus?	Yes 83.5	No 10.2	Don't know 6.3	N=5360
58	Can the use of birth control pills provide protection against AIDS/AIDS virus?	Yes 6.9	No 77.0	Don't know 16.1	N=5360
59	Can the use of birth control injections prevent one from getting AIDS?	Yes 6.5	No 78.2	Don't know 15.4	N=5360
60	Can a condom protect one against AIDS if it has been used before?	Yes 13.6	No 76.3	Don't know 10.1	N=5360
61	Can one be protected from getting the AIDS virus when one has sex with an uninfected partner(s) only?	Yes 54.4	No 34.5	Don't know 11.1	N=5360
People say many things about condoms. Please give me your opinion on the following questions					
62	Do you think one should use condoms when having sex with casual sexual partner(s)?	Yes 88.8	No 6.8	Don't know 4.4	N=5360
63	Do you think condoms make sex less enjoyable?	Yes 37.2	No 31.0	Don't know 31.8	N=5360
64	Do you think condoms can climb into the woman's womb or stomach?	Yes 27.9	No 44.6	Don't know 27.5	N=5360
65	Would condom use make you feel ashamed?	Yes 21.9	No 67.5	Don't know 10.6	N=5360
66	Is condom use against your culture?	Yes 23.7	No 66.8	Don't know 9.5	N=5360
67	Do you think condoms are easily available?	Yes 86.1	No 5.8	Don't know 8.1	N=5360
68	Can one get condoms free of charge?	Yes 82.3	No 6.2	Don't know 11.5	N=5360
69	Do you think the price of condoms is too high to use condoms regularly?	Yes 15.2	No 59.4	Don't know 25.4	N=5360
70	Would you be ashamed to ask for or to buy condoms?	Yes 24.8	No 68.5	Don't know 6.7	N=5360
71	Do you think that one can insist that a regular partner/spouse should use a condom if you know that he/she has other sexual partners?	Yes 79.7	No 13.4	Don't know 6.9	N=5360
72	If a partner suggests that a condom should be used, do you think it means that he/she does not trust his/her partner?	Yes 44.9	No 46.7	Don't know 8.4	N=5360

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73a	**Have you seen/read or heard anything about AIDS/the AIDS virus in the past six months?**	**Often** 65.2	**Seldom** 26.6	**Never** 8.2	N=5360
73b	**IF OFTEN/SELDOM AT Q73a:** Please tell me how you received this information (e.g. read a book)	Television		26.8	
		Radio		22.1	
		Magazines		7.6	
		Newspapers		7.3	
		Pamphlets		2.8	
		Posters		0.5	
		Video		0.6	
		Tapes (audio cassette)		0.1	
		Advertisements on bus		0.3	
		Workplace		1.1	
		School		2.0	
		Partner/parents		0.1	
		Family/friends		1.2	
		Church		0.1	
		Clinic		2.6	
		Doctor		0.9	
		Book		4.8	
		PWA		0.3	
		My job to know		0.4	
		Train/taxi		0.3	
		Drama		0.1	
		Youth club		0.1	
		Community meeting		1.7	
		Lecture		0.6	
		Mass media		15.1	
		Don't know		0.4	N=4954

73c	(ASK ALL RESPONDENTS) Thinking back over the past six months, have you received information on AIDS/the AIDS virus from the following ...					
(NA = respondents have no access to a source)		Often	Seldom	Never	NA	
	The television?	55.2	25.8	11.8	7.1	N=5360
	The radio?	57.4	28.3	11.8	2.5	N=5360
	Magazines?	51.0	25.7	19.2	4.0	N=5360
	Newspapers?	46.3	28.5	20.4	4.8	N=5360
	Brochures/pamphlets?	36.2	26.7	31.0	6.1	N=5360
	Posters?	36.7	26.7	30.2	6.5	N=5360
	Videotapes or films (cinema)?	10.4	16.4	55.3	18.0	N=5360
	Cassette tapes (tape recordings)?	5.6	10.5	64.4	19.5	N=5360
	Advertisements on taxis and buses?	34.2	20.7	36.1	9.1	N=5360
	At work?	17.0	10.7	15.9	56.4	N=5360
	In school? (Not at school=NA)	9.4	5.8	7.1	77.7	N=5360
	Any other source not yet mentioned?	Teacher			0.8	
		Parents/partner			3.7	
		Family/friends			18.0	
		Church			8.1	
		Clinic			40.7	
		Other written materials			8.5	
		PWA			1.4	
		Community meeting			18.7	
		Other			0.2	N=518
74	Have you ever tried to find information about AIDS/AIDS virus yourself?	Yes	No	Don't know		
		31.5	67.9	0.6		N=5360
75	Should children in high school (secondary school) receive information about AIDS?	Yes	No	Don't know		
		94.1	2.8	3.2		N=5360
76	Should children in primary school receive information about AIDS?	Yes	No	Don't know		
		77.9	16.2	5.9		N=5360
77	Have you discussed the subject of AIDS in the last month with ... (NA = respondent has no access to a source)	Yes	No	NA		
	Your relatives/family?	38.2	60.6	1.2		N=5360
	Your friends/colleagues?	59.7	39.2	1.1		N=5360
	A community health adviser?	19.7	74.0	6.3		N=5360
	A doctor/nurse/clinic staff/hospital staff?	29.7	68.0	2.3		N=5360
	A traditional healer?	4.2	79.8	16.0		N=5360

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78	I am going to read a list of possible sources of information on AIDS/AIDS virus. Will information on AIDS/AIDS virus from the following sources influence your behaviour/way of life? (NA = respondent has no access to a source.)					
		Yes	No	Don't know	N/A	
	Your friends?	61.1	34.1	2.9	1.9	N = 5360
	Your relatives or family?	60.1	35.2	2.3	2.4	N = 5360
	Your teachers?	17.2	9.5	1.2	72.0	N = 5360
	A health adviser/worker?	53.5	29.7	4.0	12.8	N = 5360
	A nurse?	64.3	28.2	3.3	4.3	N = 5360
	A doctor?	66.9	27.1	2.6	3.4	N = 5360
	A person with AIDS?	51.6	33.1	5.2	10.1	N = 5360
	A traditional healer?	19.7	52.5	6.8	21.0	N = 5360
	A church leader/minister?	44.0	45.5	6.7	6.8	N = 5360
	From the television?	58.3	19.5	2.4	19.8	N = 5360
	From the radio?	63.6	18.8	2.5	15.0	N = 5360
	Printed material (newspapers, magazines, brochures, pamphlets)?	65.4	25.4	4.4	4.9	N = 5360

79	Select the way in which you would MOST prefer to receive information about AIDS/AIDS virus:		
	Interpersonal contact	39.9	
	Information on TV	32.9	
	Information over the radio	10.0	
	Information in printed materials	16.7	
	Don't know	0.5	N = 5360

80	Do you think that nurses will be prejudiced towards a person with AIDS/ the AIDS virus?	Yes	No	Don't know	N = 5360
		24.3	59.0	16.7	
81	Do you believe that a doctor will treat the knowledge that a patient has AIDS/the AIDS virus as confidential (i.e. will not make the information available without the permission of the patient)?	Yes	No	Don't know	N = 5360
		59.7	30.7	9.6	
82	Do you think one can prevent illness if one looks after one's health?	Yes	No	Don't know	N = 5360
		80.0	14.9	5.1	

83	Who do you think is responsible for your health?	Yourself	87.6	
		Doctors/Nurses	9.8	
		God	0.5	
		Parents	2.0	
		Don't know	0.2	N = 5360

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84	Can you do anything to promote your health?	Yes	80.7	
		No	13.9	
		Don't know	5.4	N = 5360
85	**IF YES AT Q84**: What can you do?	Unintelligible	0.9	
		Exercise	32.6	
		Diet	0.3	
		Clean lifestyle	15.3	
		Medical care	26.4	
		Avoid AIDS	15.9	
		Be informed	10.0	
		Religion/God	0.4	
		Future planning	5.7	
		Traditional medicine	0.6	N = 4325 1494 respondents gave more than 1 answer

86	Do you actively try to keep healthy?	Yes	No	Don't know	
		70.1	26.5	3.4	N = 5360

87	**IF YES AT Q86**: What do you do?	Unintelligible	1.2	
		Exercise	65.1	
		Diet	32.9	
		Healthy lifestyle	7.8	
		Medical advice	13.1	
		Avoid AIDS	6.0	
		Be informed	0.3	
		Religion/God	0.1	
		Future planning	2.1	
		Traditional medicine	0.9	N = 3759 1105 respondents gave more than 1 answer

88	Are the following health care services easily available should you or your family be in need of them? (N/A also for do not know or service never used)				
		Yes	No	N/A	
	Clinic?	91.2	5.8	2.9	N = 5360
	Hospital?	87.5	10.7	1.8	N = 5360
	Doctor?	92.5	6.3	1.3	N = 5360
	Nurse?	85.5	10.4	4.2	N = 5360
	Health adviser?	62.6	25.0	12.4	N = 5360
	Chemist?	80.9	13.8	5.2	N = 5360

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89	Would you be prepared to look after a relative with AIDS in your own home?	Yes 61.8	Yes 29.2	Don't know 9.0	N = 5360
90a	Reasons for a "Yes" at Q89	Don't know		4.2	
		Duty to care for family		9.2	
		Will not be infected		14.4	
		Am informed about AIDS		5.2	
		My responsibility		69.8	
		Other people stigmatize		2.7	
		Must hide disgrace		0.7	
		PWA a source of information		0.5	N = 3315 224 respondents gave more than 1 answer
		Other		0.03	
90b	Reasons for a "No" at Q89	Unintelligible		4.2	
		Only hospital		17.1	
		Infection fear		55.5	
		No time/resources		5.2	
		Poverty		1.3	
		Not informed		17.1	
		Disgrace		1.5	
		Hasten death of PWA		0.7	N = 1564 45 respondents gave more than 1 answer
		AIDS does not exist		0.3	
90c	Reasons for a "Don't know" at Q89	Don't know		46.6	
		Only hospital		18.3	
		Infection fear		14.3	
		No time		5.8	
		Poverty		2.5	
		Disgrace		1.9	
		AIDS does not exist		1.5	N = 481 10 respondents gave more than 1 answer
		Unsure		11.2	

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91a	Are you married?	Yes	No	Refuse	
		43.9	56.0	0.1	N = 5360
91b	Do you have a permanent sexual partner (other than a spouse)?	39.9	59.7	0.4	N = 5360
91c	Do you have (a) casual sexual partner(s)?	15.3	84.3	0.4	N = 5360
92	**ONLY IF RESPONDENT HAS A SEXUAL PARTNER:** If you had sex during the last 3 months did you and your partner(s)	use a condom every time?		8.7	
		use a condom only sometimes?		13.6	
		never use a condom?		62.5	
		no answer given.		15.2	N = 4196
93	**IF RESPONDENT HAS PERMANENT SEXUAL PARTNER OR IS MARRIED:** Have you ever had sex with anyone other than your spouse or regular partner?	Yes	No	Refusal	
		23.7	73.4	3.0	N = 3847
94	**IF Yes TO Q.93:** Did you use a condom on any of these occasions?	Yes	No	Refusal	
		41.6	57.0	1.4	N = 911
95	**ASK ALL RESPONDENTS WITH A SEXUAL PARTNER:** Have you or your sexual partner had a sexually transmitted disease?	Yes	No	Don't know	
		5.4	87.0	7.7	N = 4196
96	**IF Yes AT Q.95:** Did you and your sexual partner inform each other about the sexually transmitted disease?	Yes	No	Refusal	
		65.3	29.8	4.9	N = 225
97	**ASK ALL RESPONDENTS:** After hearing about AIDS, did you think it was necessary to change your sexual behaviour?	Yes	No	Refusal	
		35.6	63.1	1.3	N = 5036
98	**IF Yes AT Q.97:** Who influenced you to change your behaviour?	Don't know		5.0	
		No one		33.2	
		Partner		5.8	
		Family		4.6	
		Mass media		33.0	
		Doctor/nurse		16.8	
		Church		0.3	
		Friends		10.0	
		Person with AIDS		1.4	
		Colleagues/fellow students		3.0	N = 1908 238 respondents gave more than 1 answer

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99	**IF YES AT Q.97:** Which behaviour did you change and why?	Don't know	6.4	
		One partner	79.8	
		Condoms	15.6	
		Not share utensils (blades, toothbrushes, etc.)	0.2	
		Avoid substance abuse	0.6	
		Wash after sex	0.1	
		Fear	9.5	
		Visit clinic often	1.6	
		Blood test	0.3	N = 1908 268 respondents gave more than 1 answer
100	**IF NO AT Q.97:** Why do you say so?	Don't know	1.7	
		Always one partner	55.0	
		Careful	15.5	
		No drug use	0.1	
		Use condoms	2.3	
		AIDS does not exist	2.9	
		Had blood test	0.3	
		Celibacy	22.4	
		Not sure	3.5	N = 3382 149 respondents gave more than 1 answer
		Unintelligible	0.7	

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APPENDIX B

SCHEMATIC PRESENTATIONS

FIGURE B.1
MEAN SCORES FOR KNOWLEDGE OF TRANSMISSION, SUBGROUP 1

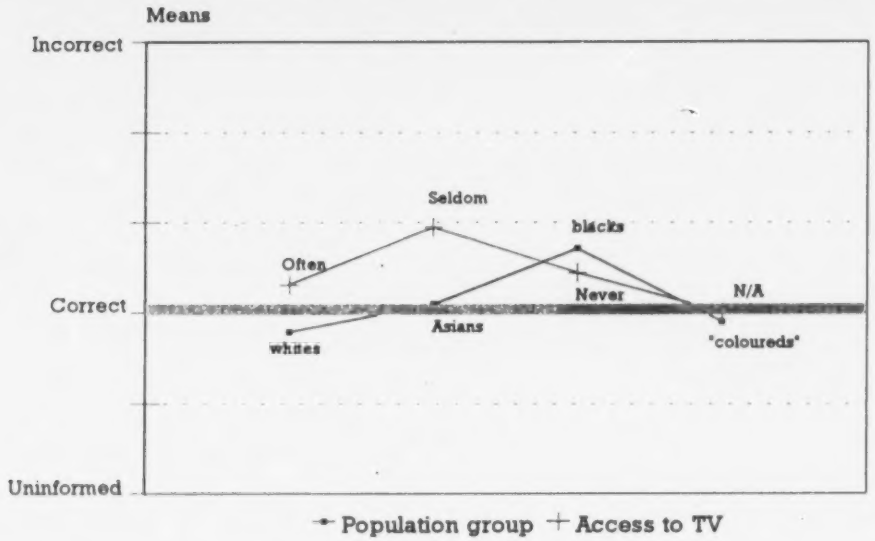


FIGURE B.2
MEAN SCORES FOR KNOWLEDGE OF TRANSMISSION, SUBGROUP 2

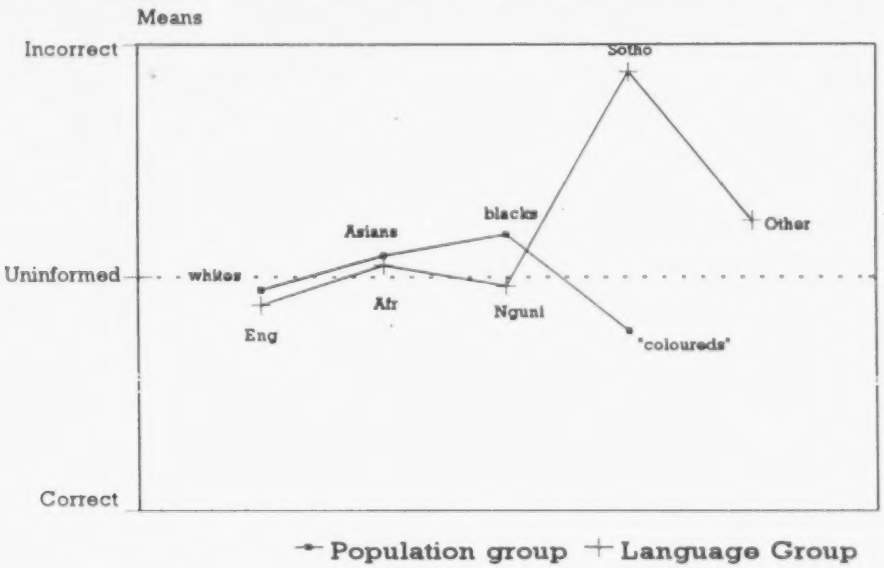


FIGURE B.3
MEAN SCORES FOR KNOWLEDGE OF TRANSMISSION VIA CASUAL CONTACT

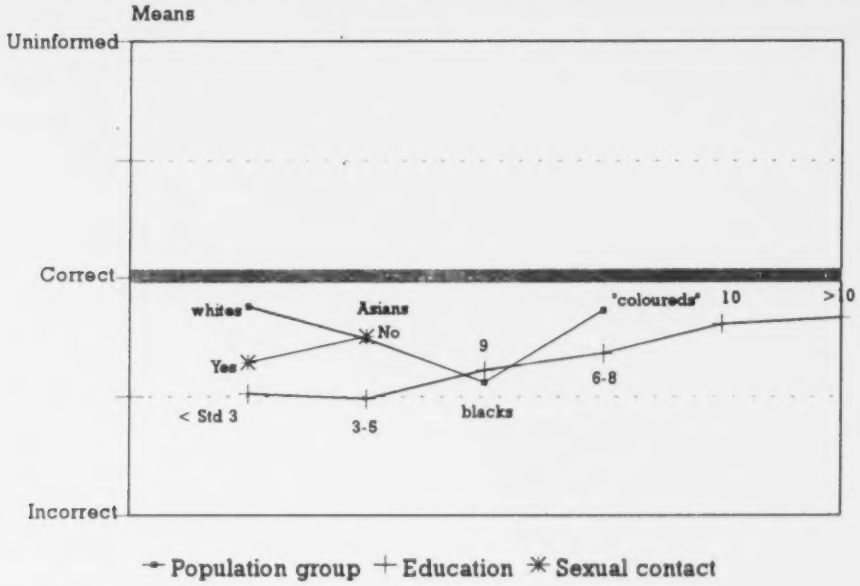


FIGURE B.4
MEAN SCORES FOR KNOWLEDGE OF STDs

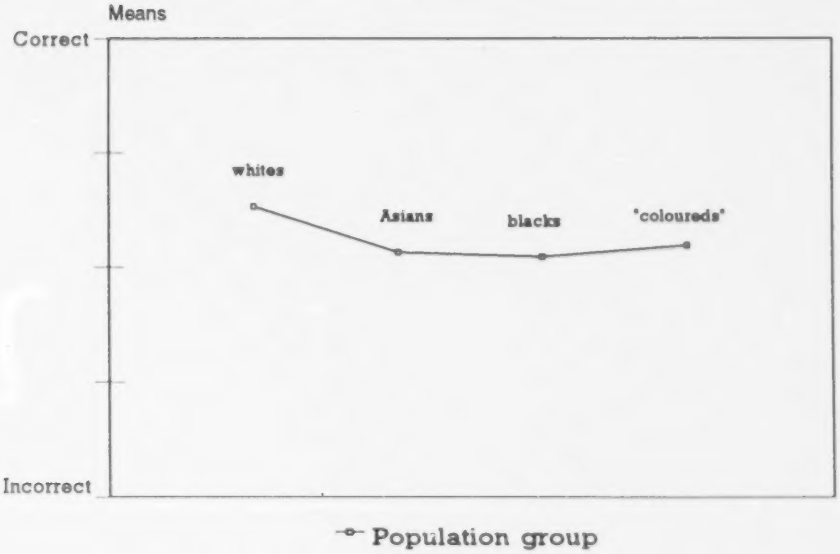


FIGURE B.5
MEAN SCORES FOR KNOWLEDGE OF PREVENTION

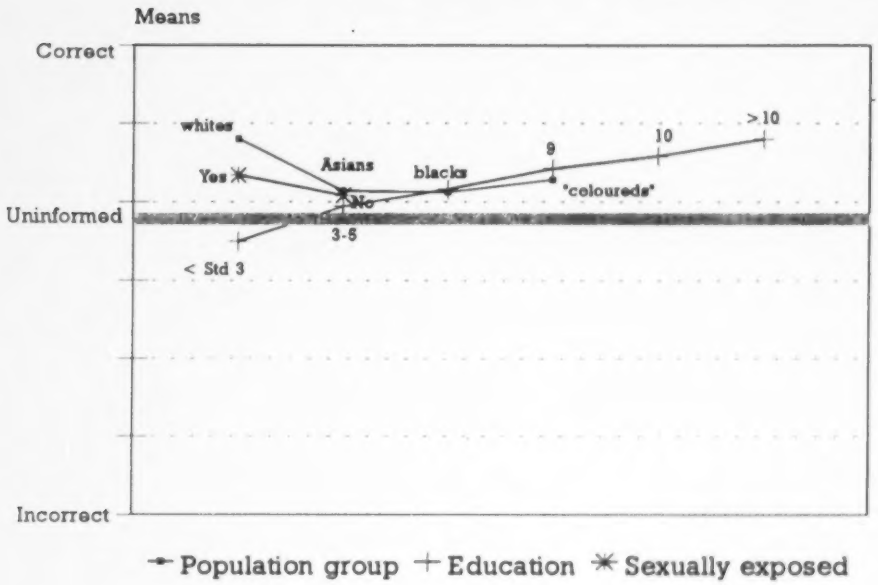


FIGURE B.6
% RESPONDENTS INDICATING INAPPROPRIATE MEANS OF PROTECTION AGAINST HIV

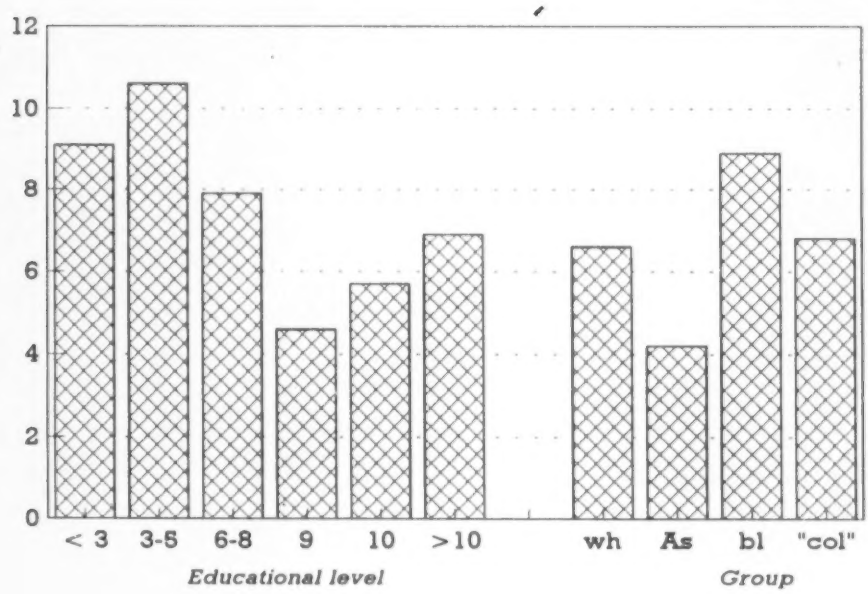


FIGURE B.7
MEAN SCORES FOR PERCEPTIONS OF SERIOUSNESS/OUTCOME

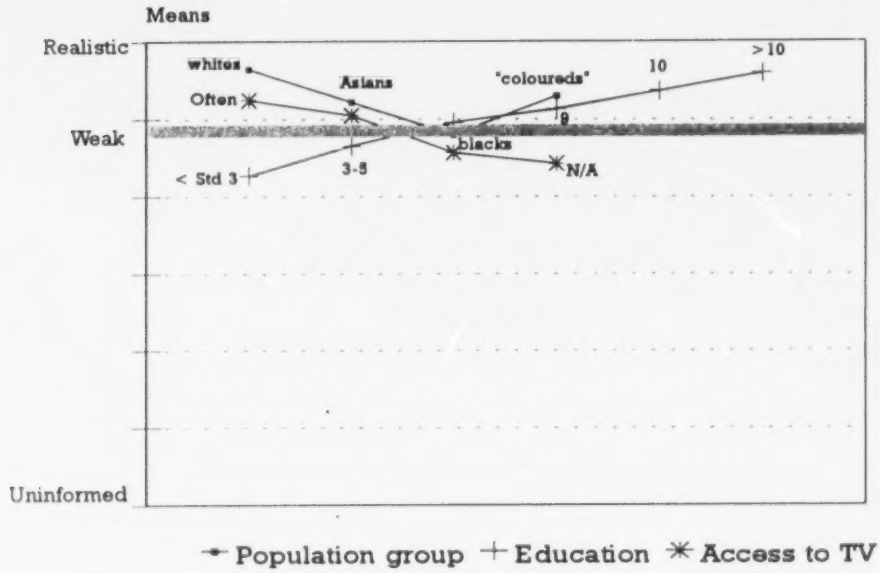


FIGURE B.8
MEAN SCORES FOR ACCEPTABILITY OF CONDOM USE

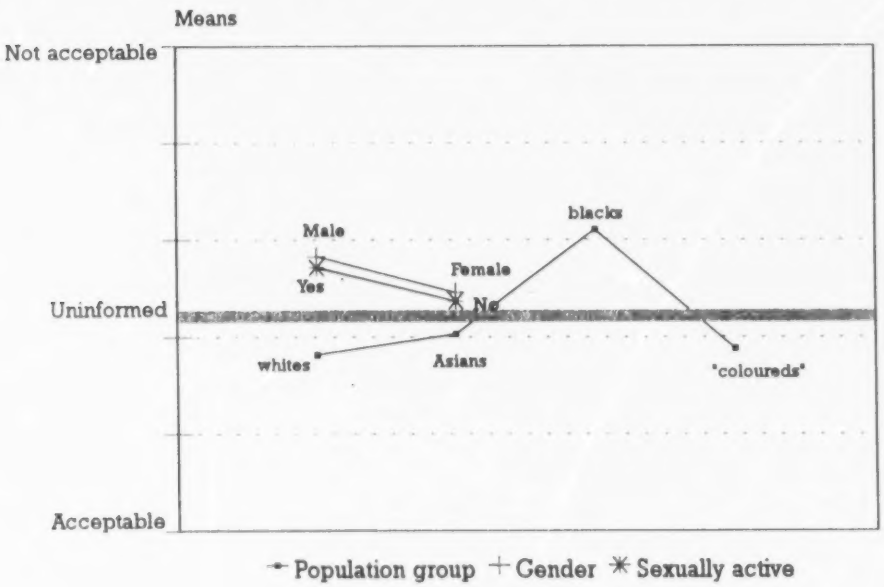


FIGURE B.9
MEAN SCORES FOR PERCEPTIONS OF CONDOM AVAILABILITY

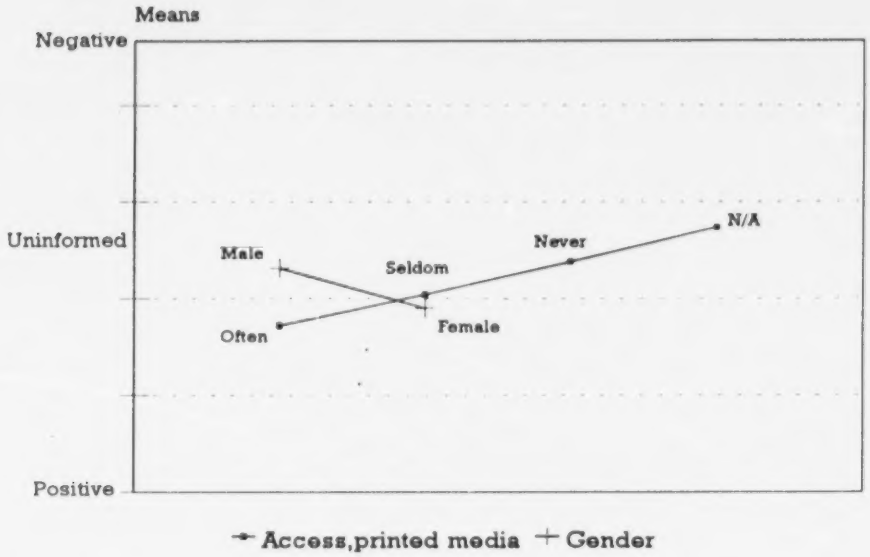


FIGURE B.10
MEAN SCORES FOR ACCEPTABILITY OF MULTIPLE SEXUAL PARTNERS

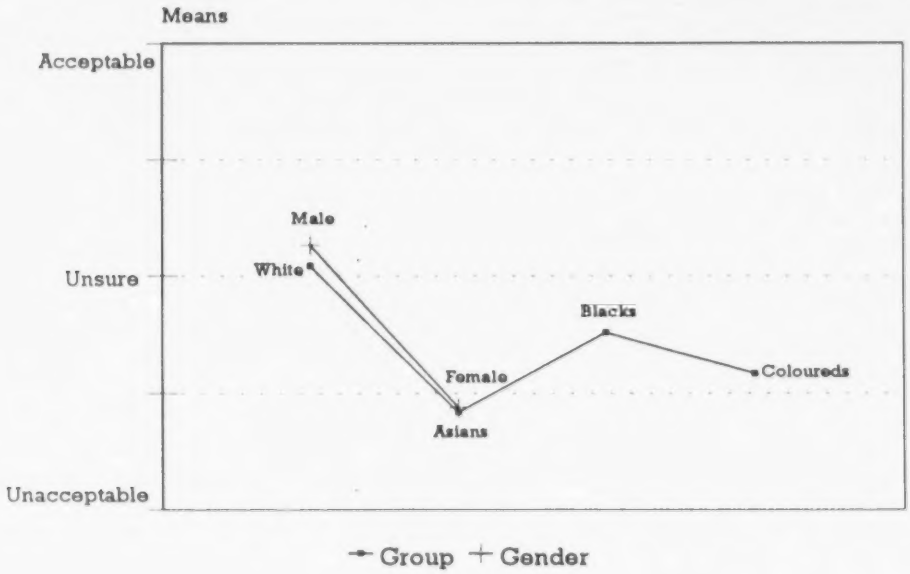


FIGURE B.11
% DISTRIBUTION OF WHO SHOULD TAKE RESPONSIBILITY FOR PROTECTION

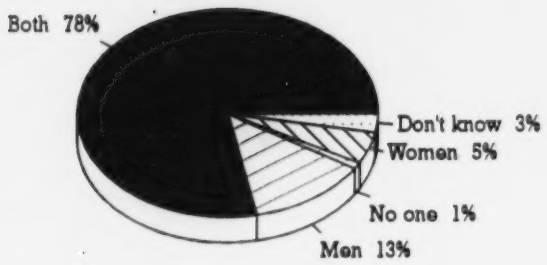


FIGURE B.12
MEAN SCORES FOR PERCEPTIONS OF SOCIAL DISTANCE

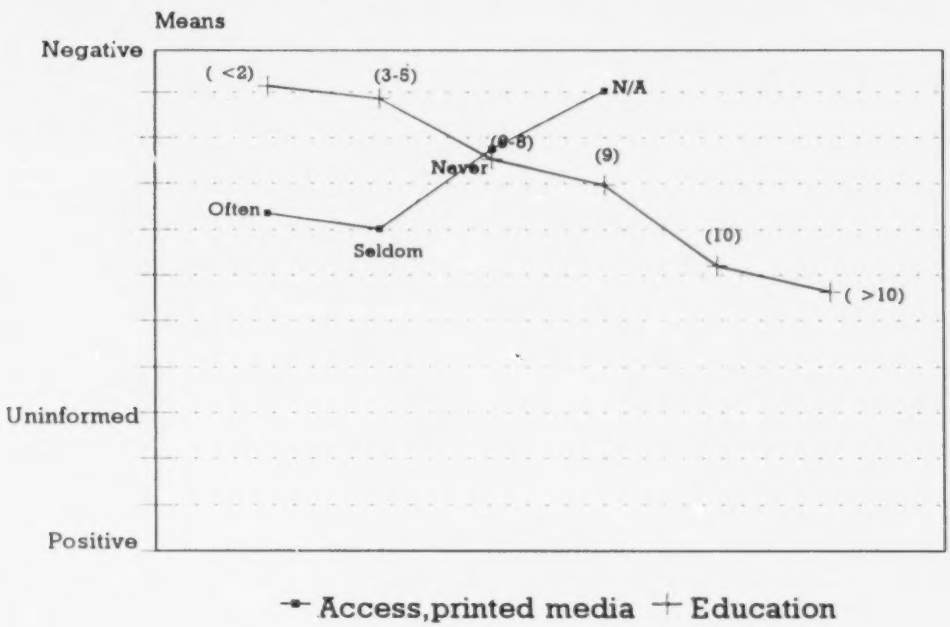


FIGURE B.13
MEAN SCORES FOR PERCEPTIONS OF LOCUS OF CONTROL

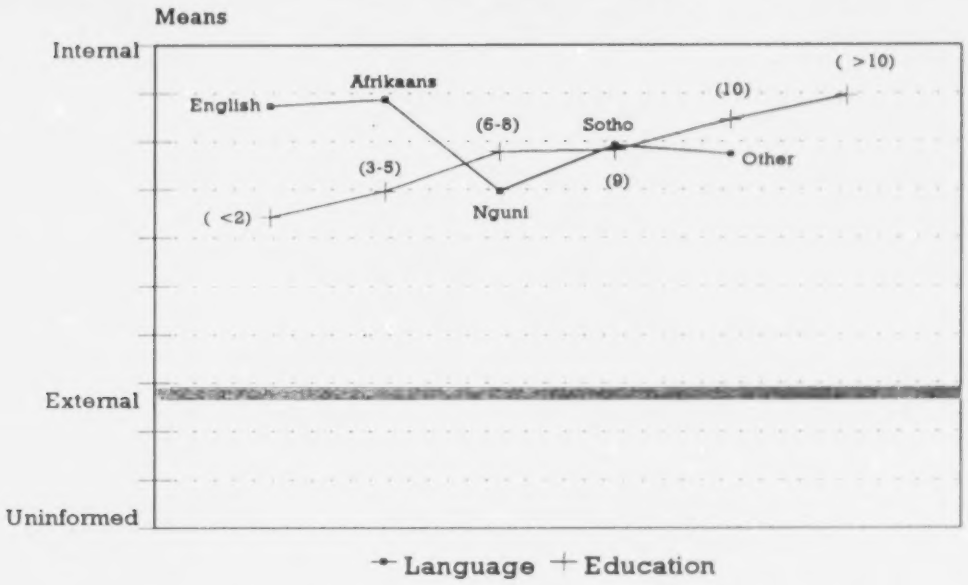
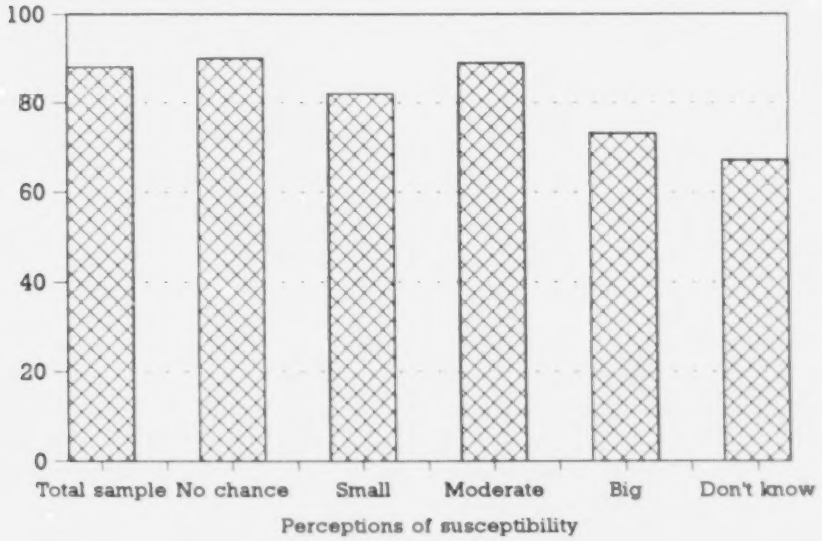


FIGURE B.14
% RESPONDENTS WILLING TO UNDERTAKE BLOOD TESTS FOR HIV



APPENDIX B

SCHEMATIC PRESENTATIONS

Study of knowledge, attitudes, perceptions and beliefs regarding HIV and AIDS (KAPB)

FIGURE B.1
MEAN SCORES FOR KNOWLEDGE OF TRANSMISSION, SUBGROUP 1

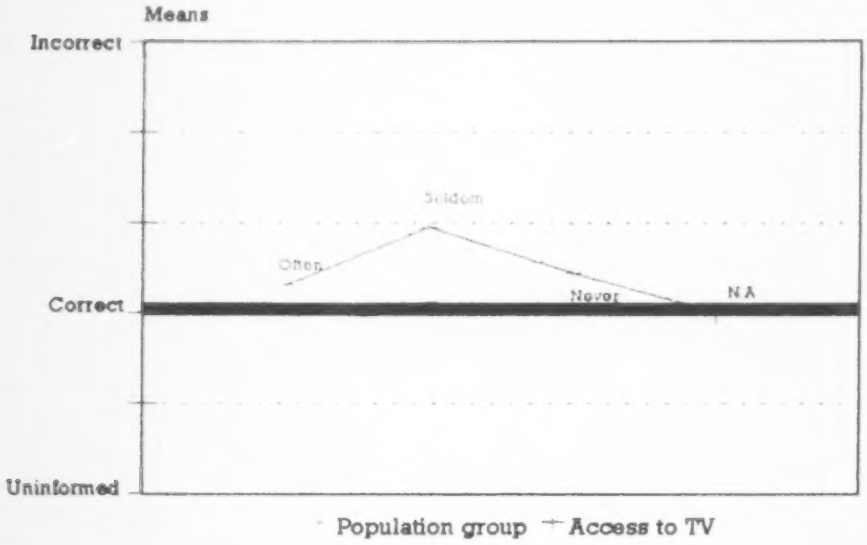


FIGURE B.2
MEAN SCORES FOR KNOWLEDGE OF TRANSMISSION, SUBGROUP 2

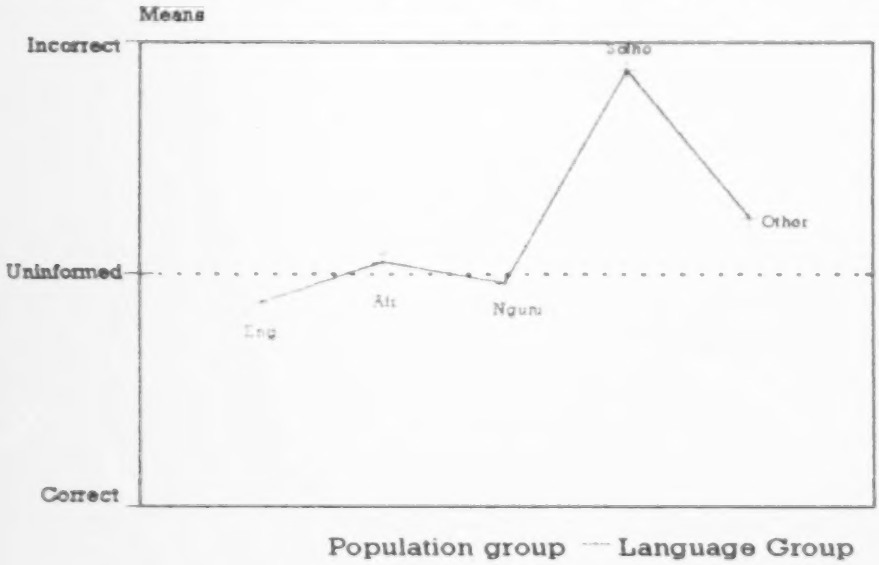


FIGURE B.3
MEAN SCORES FOR KNOWLEDGE OF TRANSMISSION VIA CASUAL CONTACT

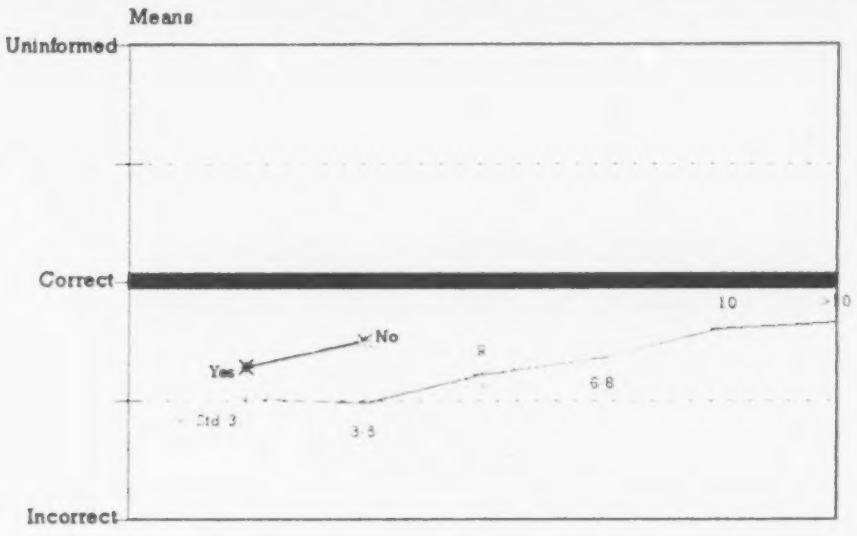


FIGURE B.4
MEAN SCORES FOR KNOWLEDGE OF STDs

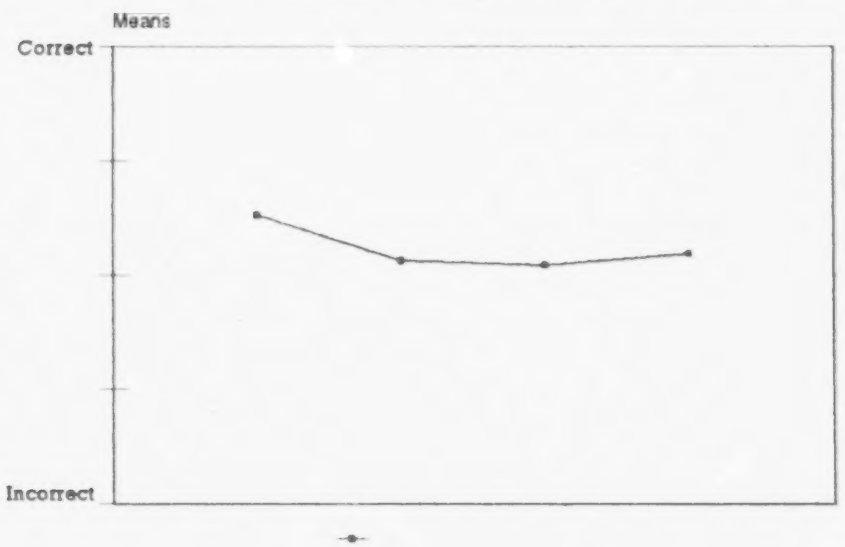


FIGURE B.5
MEAN SCORES FOR KNOWLEDGE OF PREVENTION

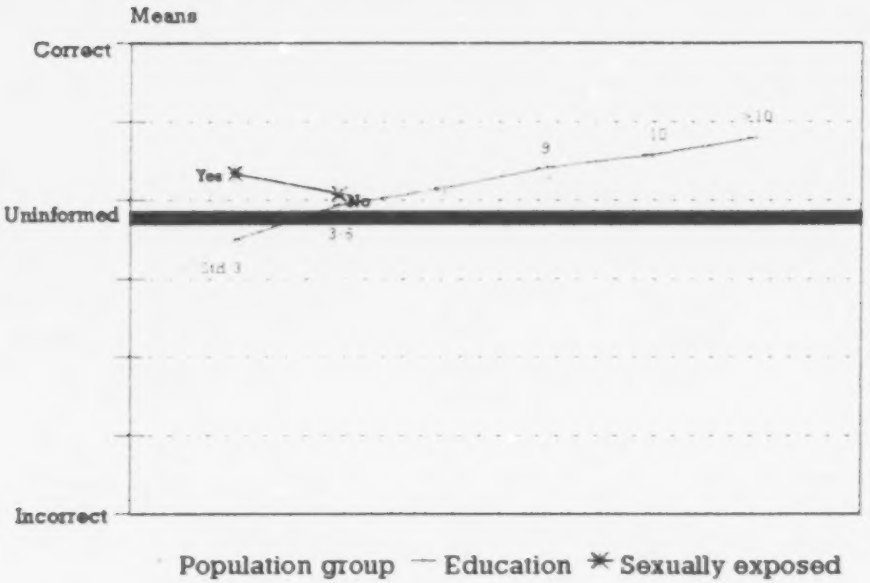


FIGURE B.6
% RESPONDENTS INDICATING INAPPROPRIATE MEANS OF PROTECTION AGAINST HIV

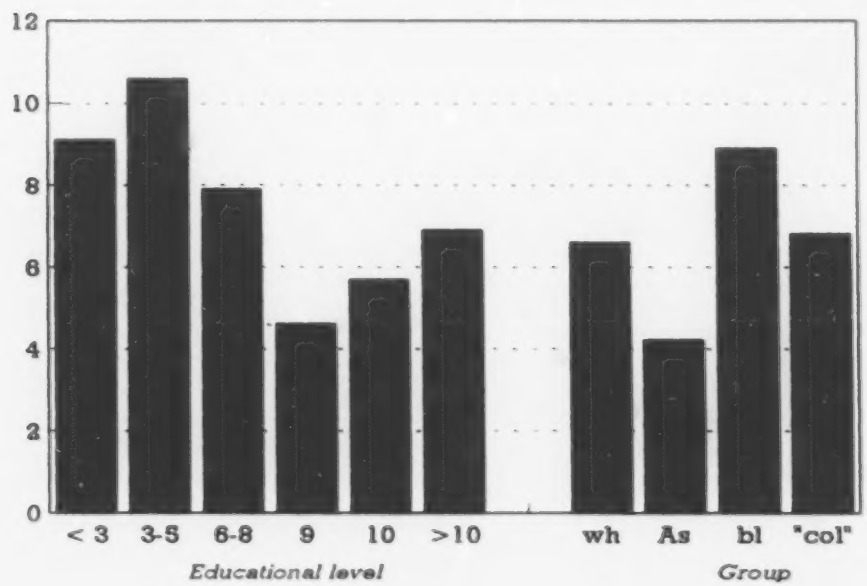


FIGURE B.7
MEAN SCORES FOR PERCEPTIONS OF SERIOUSNESS/OUTCOME

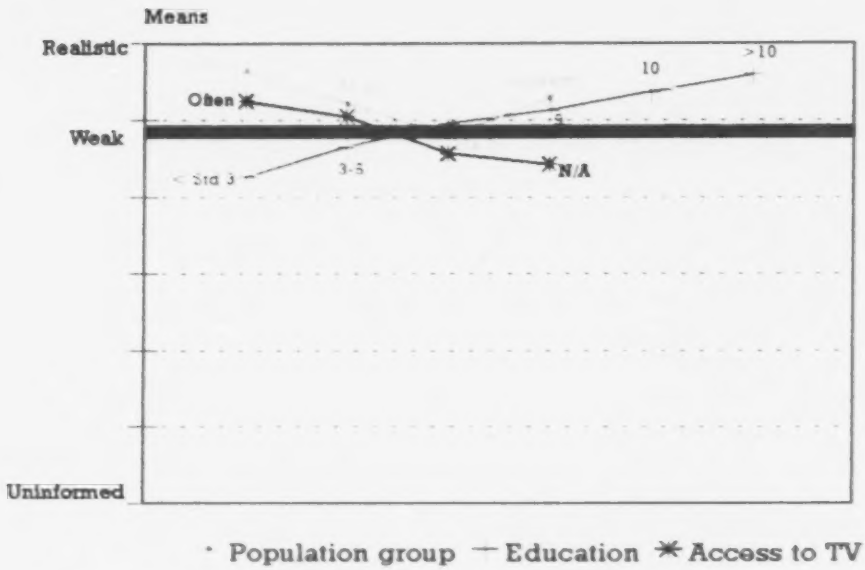


FIGURE B.8
MEAN SCORES FOR ACCEPTABILITY OF CONDOM USE

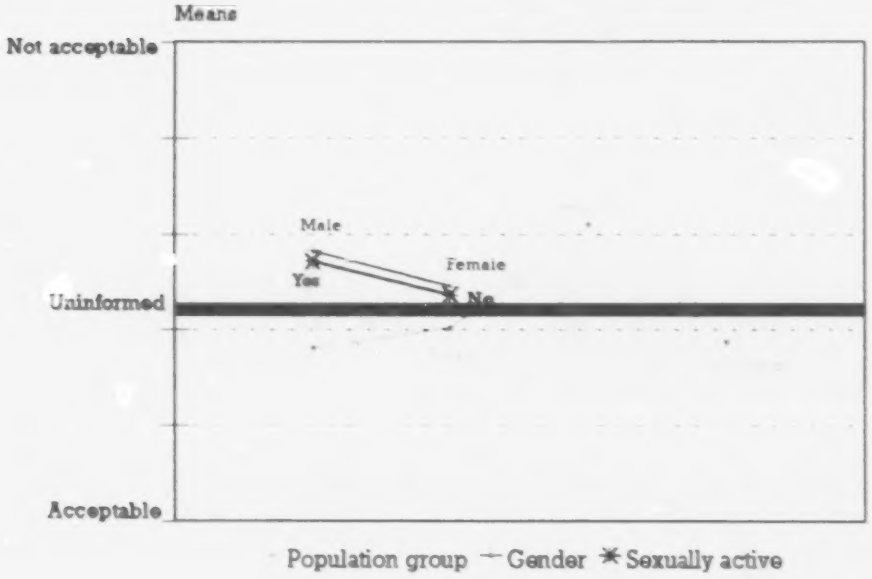


FIGURE B.1
MEAN SCORES FOR KNOWLEDGE OF TRANSMISSION, SUBGROUP 1

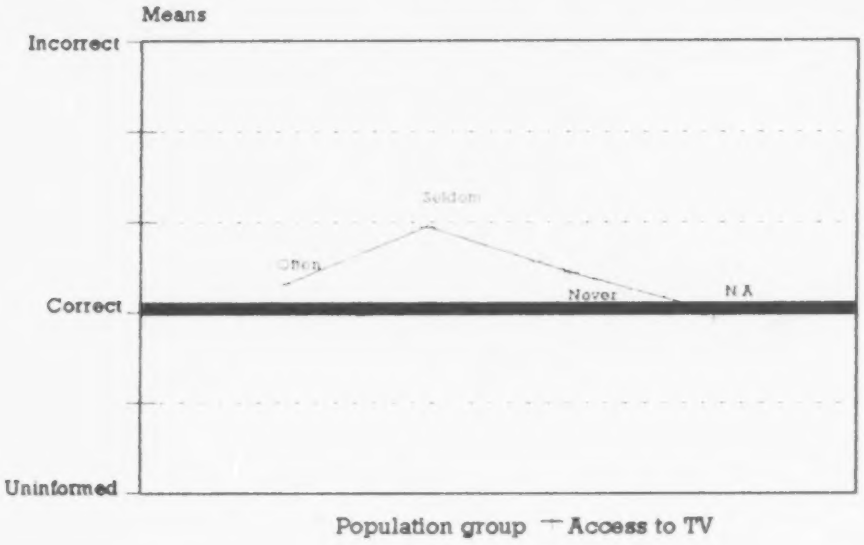


FIGURE B.2
MEAN SCORES FOR KNOWLEDGE OF TRANSMISSION, SUBGROUP 2

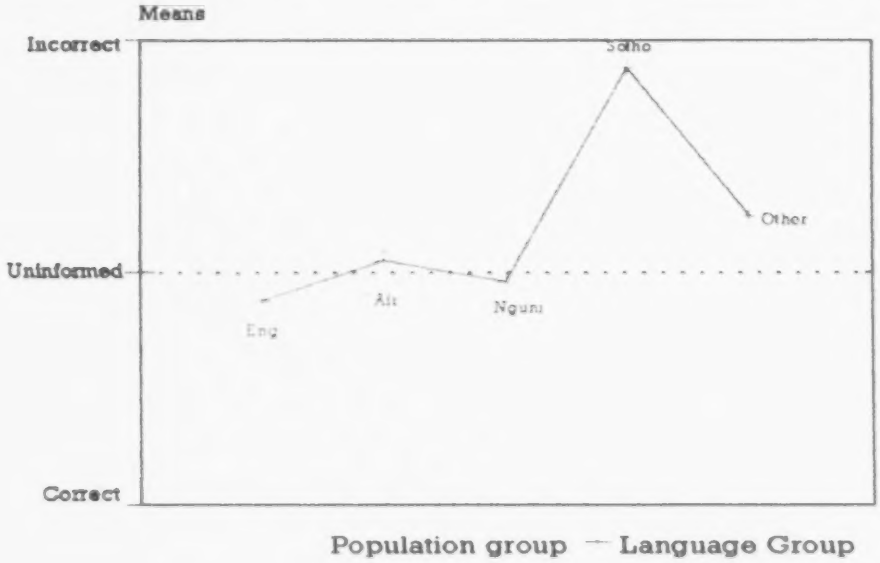


FIGURE B.1
MEAN SCORES FOR KNOWLEDGE OF TRANSMISSION, SUBGROUP 1

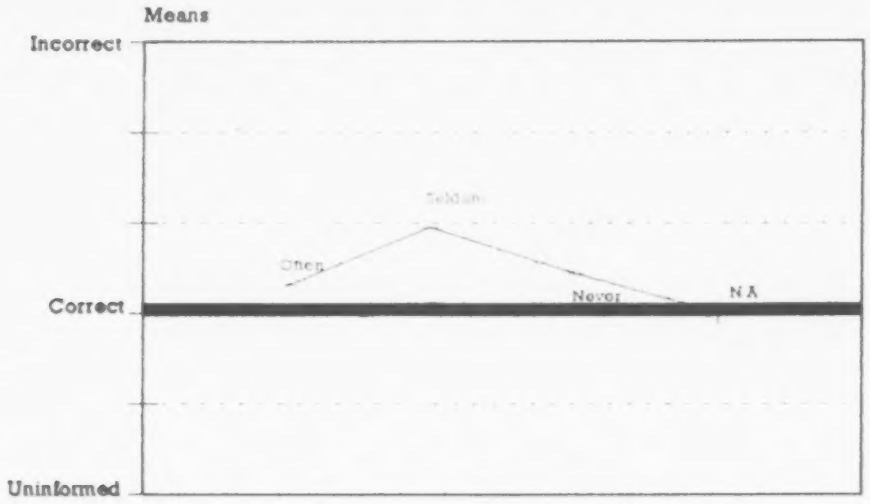


FIGURE B.2
MEAN SCORES FOR KNOWLEDGE OF TRANSMISSION, SUBGROUP 2

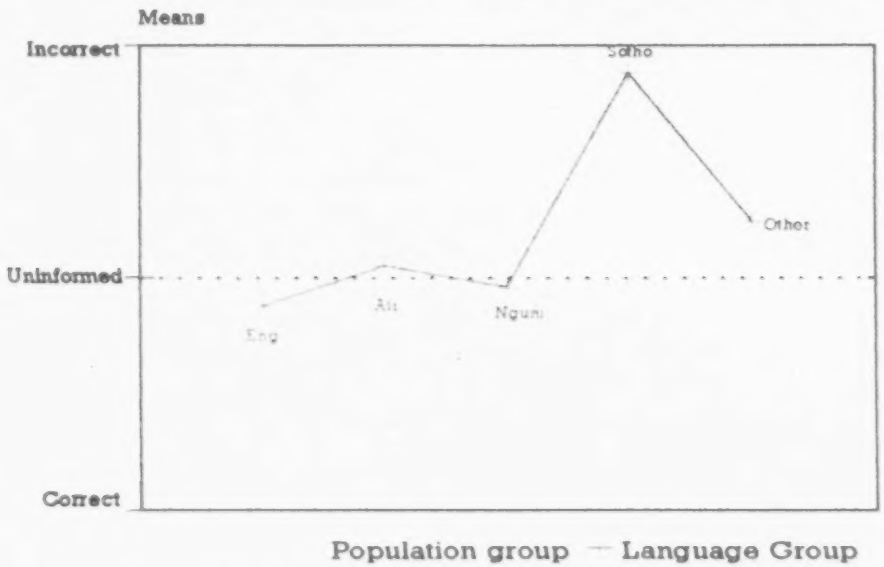


FIGURE B.1
MEAN SCORES FOR KNOWLEDGE OF TRANSMISSION, SUBGROUP 1

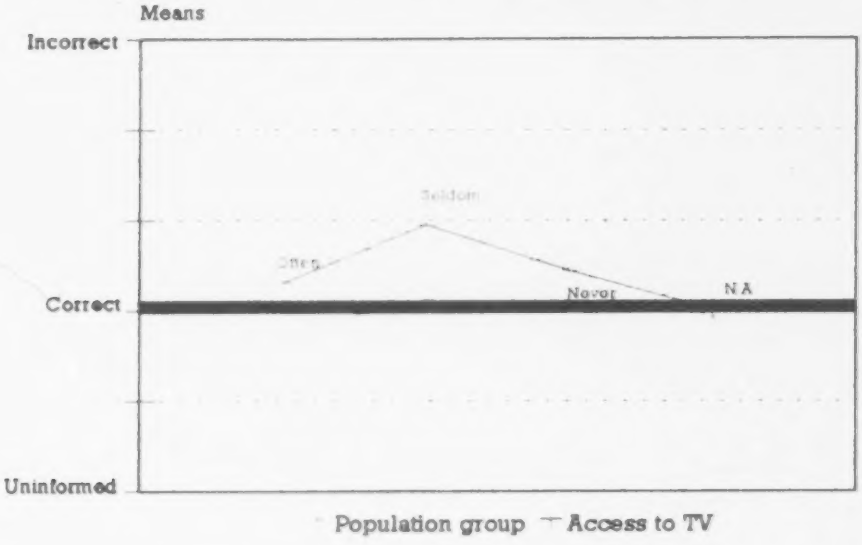


FIGURE B.2
MEAN SCORES FOR KNOWLEDGE OF TRANSMISSION, SUBGROUP 2

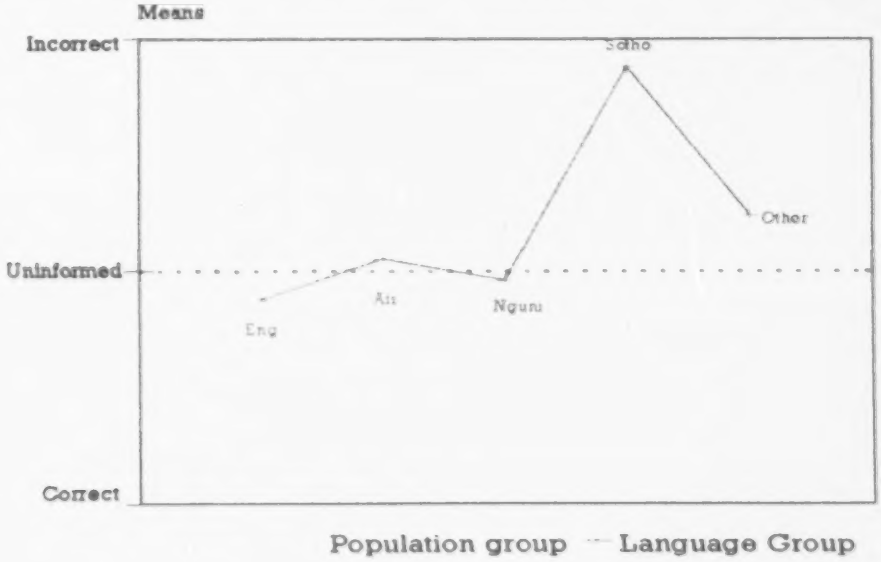


FIGURE B.1
MEAN SCORES FOR KNOWLEDGE OF TRANSMISSION, SUBGROUP 1

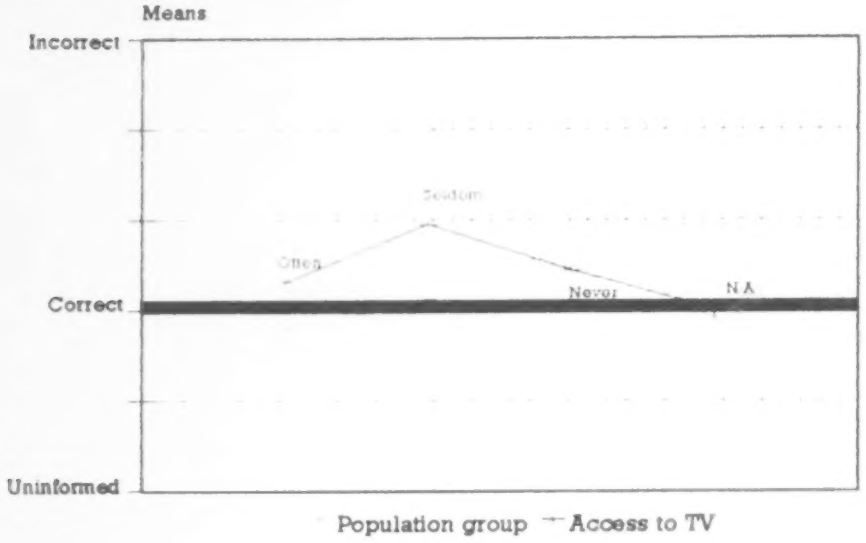


FIGURE B.2
MEAN SCORES FOR KNOWLEDGE OF TRANSMISSION, SUBGROUP 2

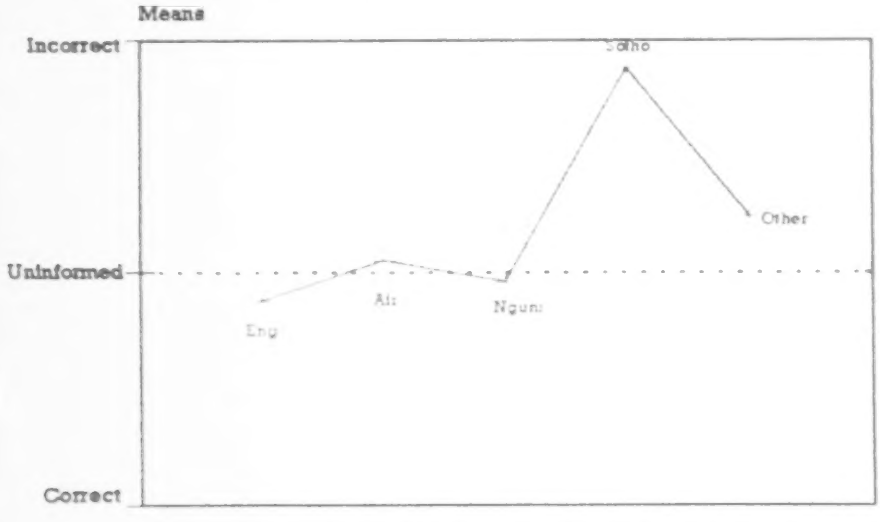


FIGURE B.1
MEAN SCORES FOR KNOWLEDGE OF TRANSMISSION, SUBGROUP 1

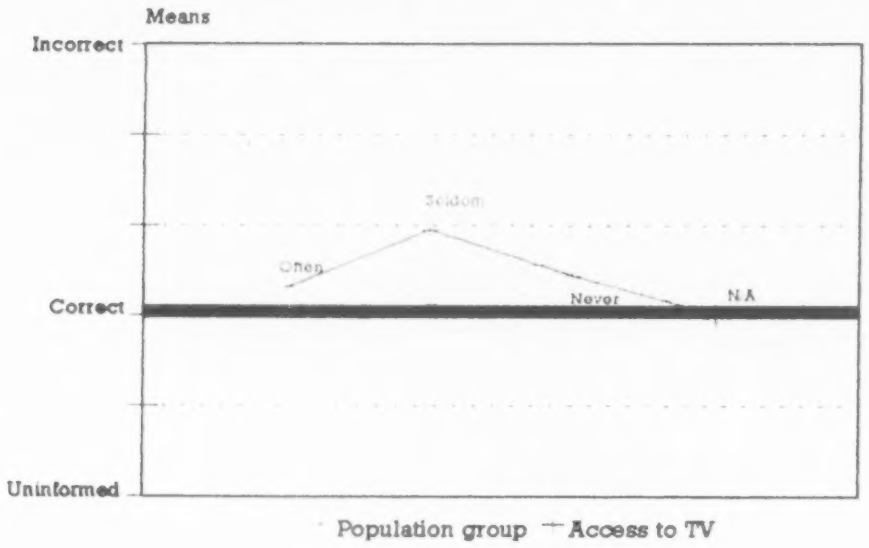


FIGURE B.2
MEAN SCORES FOR KNOWLEDGE OF TRANSMISSION, SUBGROUP 2

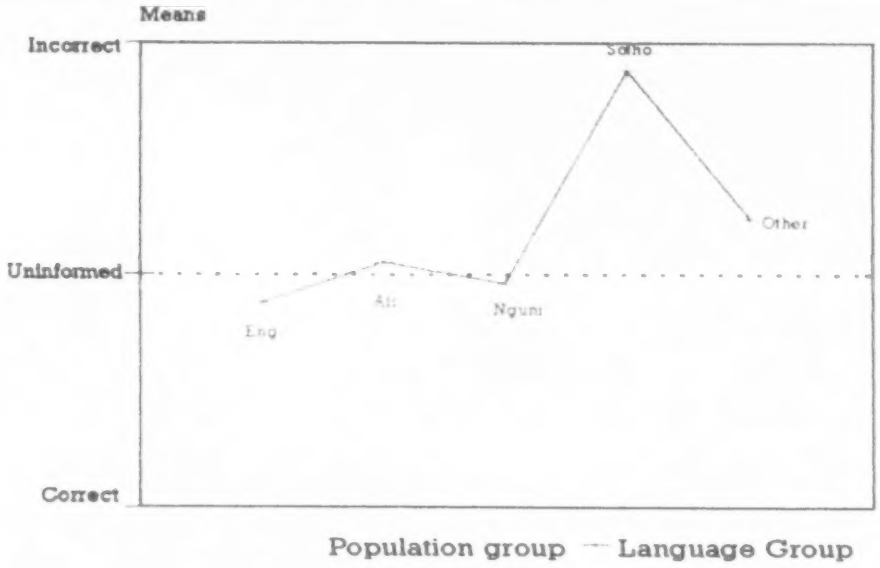


FIGURE B.1
MEAN SCORES FOR KNOWLEDGE OF TRANSMISSION, SUBGROUP 1

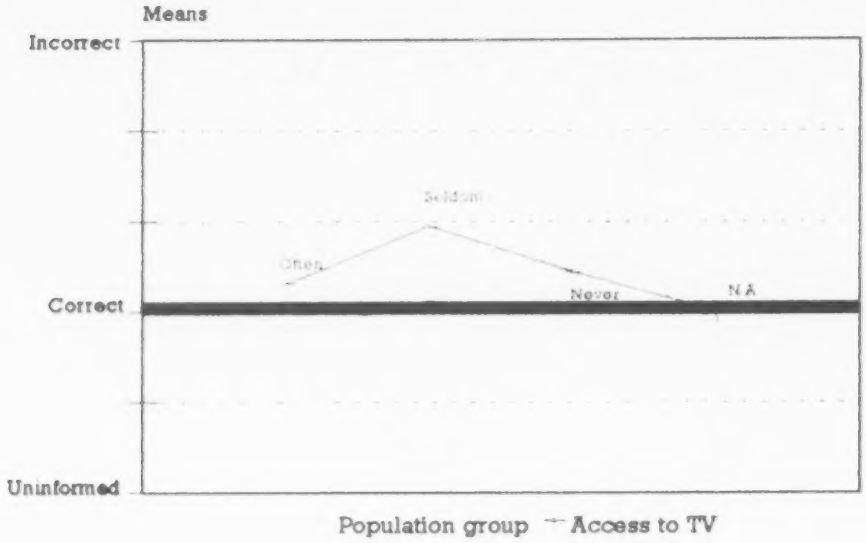


FIGURE B.2
MEAN SCORES FOR KNOWLEDGE OF TRANSMISSION, SUBGROUP 2

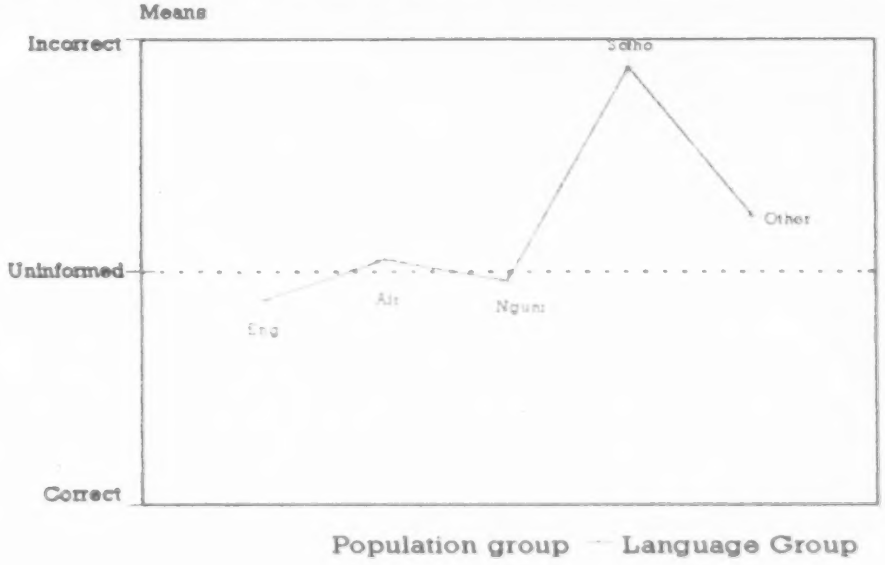


FIGURE B.1
MEAN SCORES FOR KNOWLEDGE OF TRANSMISSION, SUBGROUP 1

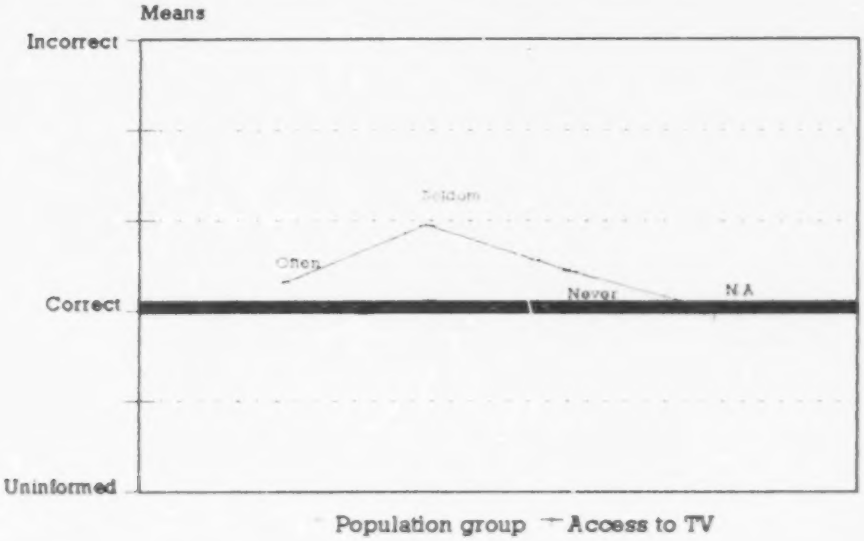


FIGURE B.2
MEAN SCORES FOR KNOWLEDGE OF TRANSMISSION, SUBGROUP 2

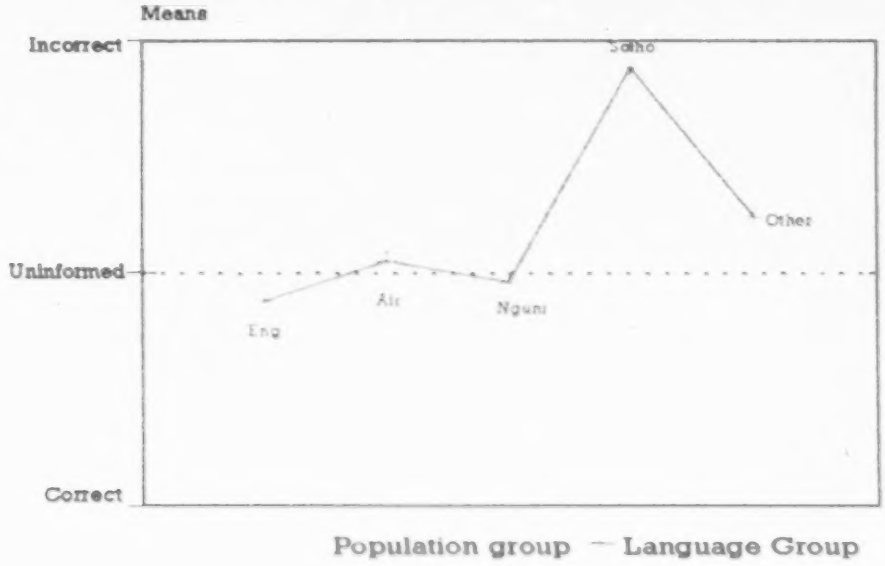


FIGURE B.1
MEAN SCORES FOR KNOWLEDGE OF TRANSMISSION, SUBGROUP 1

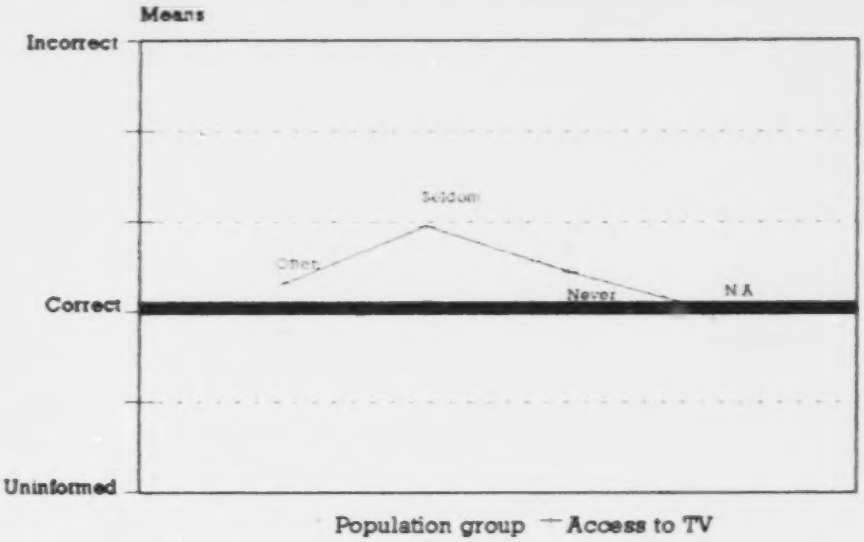


FIGURE B.2
MEAN SCORES FOR KNOWLEDGE OF TRANSMISSION, SUBGROUP 2

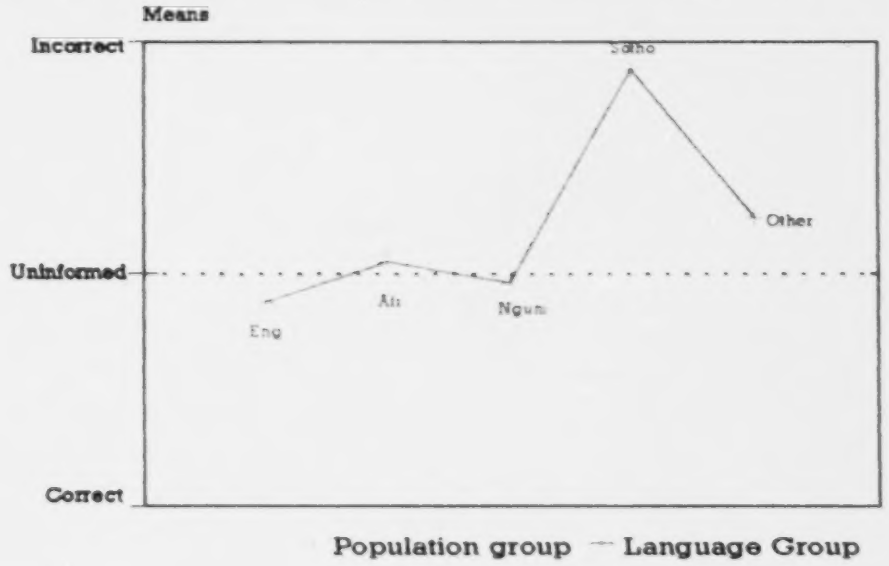


FIGURE B.1
MEAN SCORES FOR KNOWLEDGE OF TRANSMISSION, SUBGROUP 1

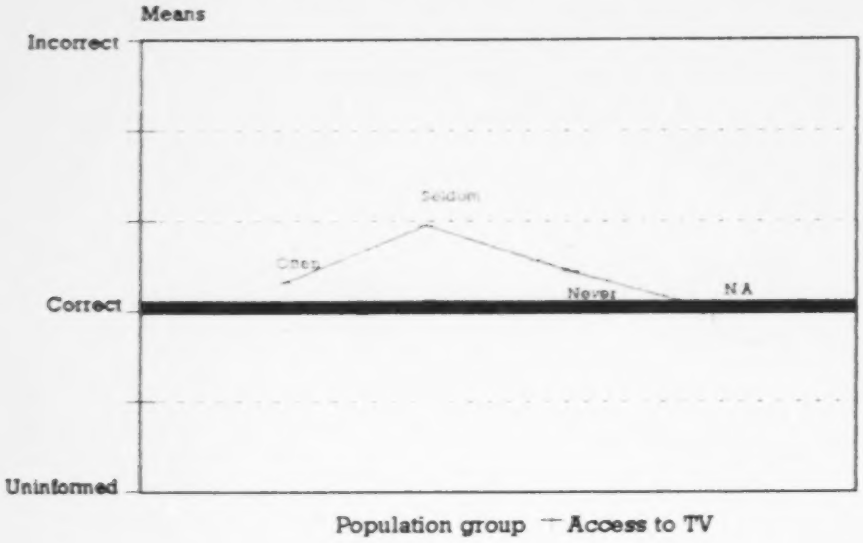


FIGURE B.2
MEAN SCORES FOR KNOWLEDGE OF TRANSMISSION, SUBGROUP 2

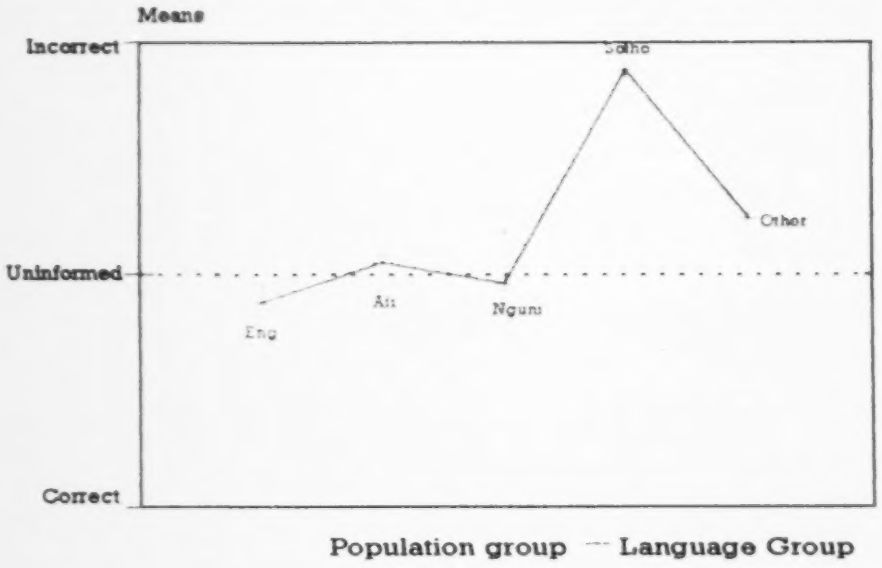


FIGURE B.3
MEAN SCORES FOR KNOWLEDGE OF TRANSMISSION VIA CASUAL CONTACT

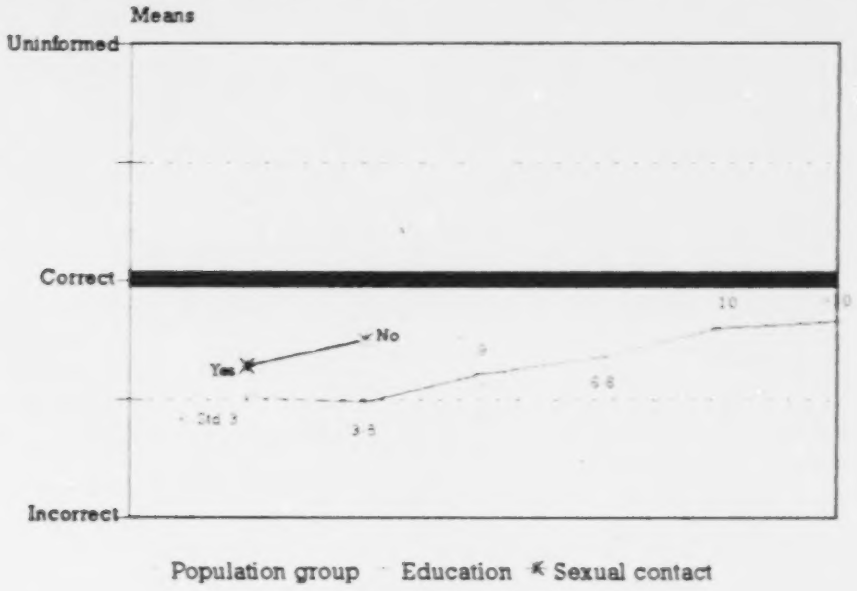


FIGURE B.4
MEAN SCORES FOR KNOWLEDGE OF STDs

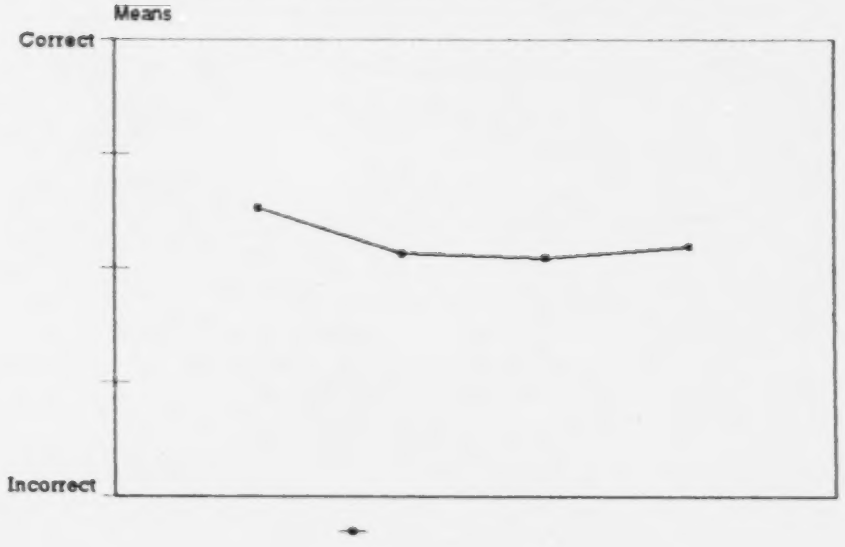


FIGURE B.3
MEAN SCORES FOR KNOWLEDGE OF TRANSMISSION VIA CASUAL CONTACT

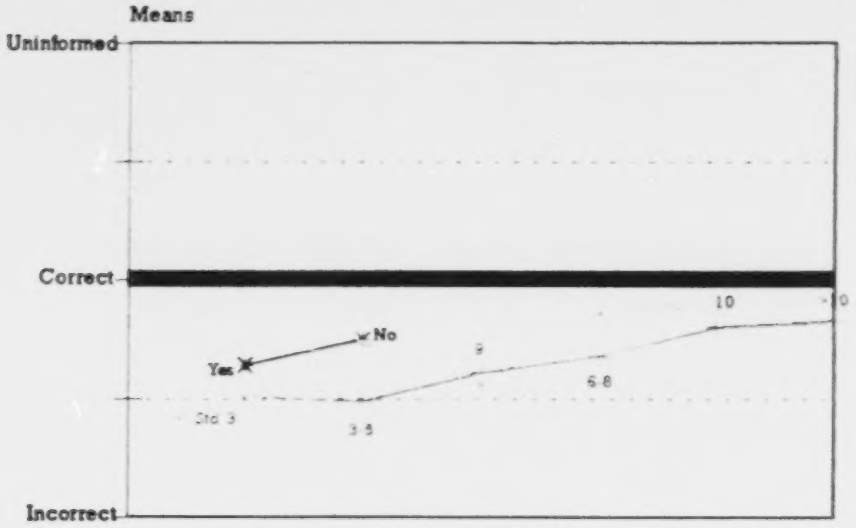


FIGURE B.4
MEAN SCORES FOR KNOWLEDGE OF STDs

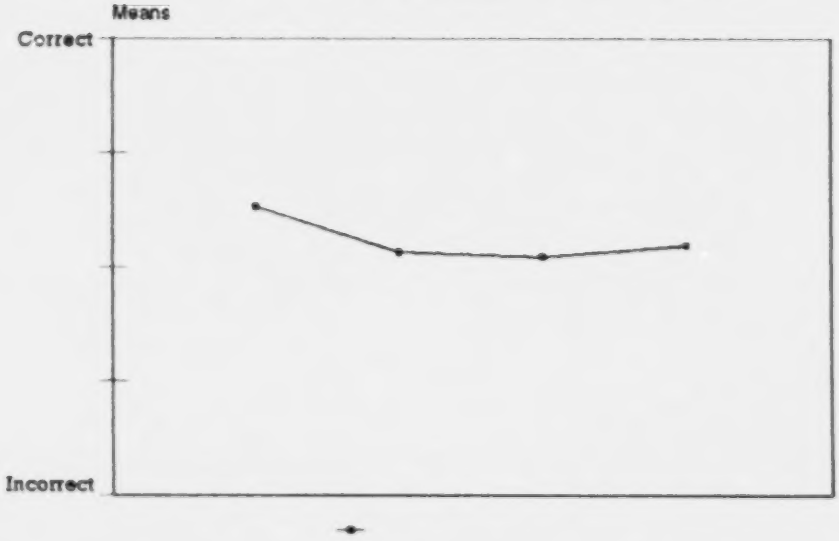


FIGURE B.3
MEAN SCORES FOR KNOWLEDGE OF TRANSMISSION VIA CASUAL CONTACT

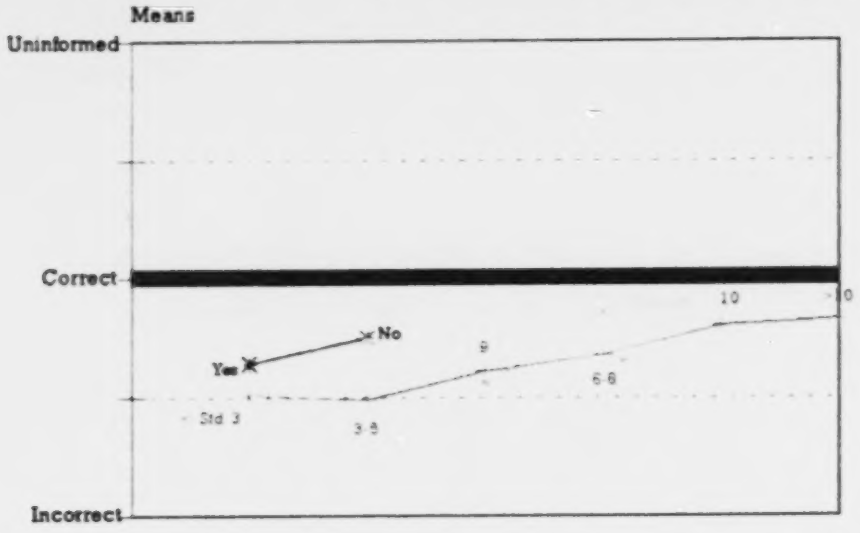


FIGURE B.4
MEAN SCORES FOR KNOWLEDGE OF STDs

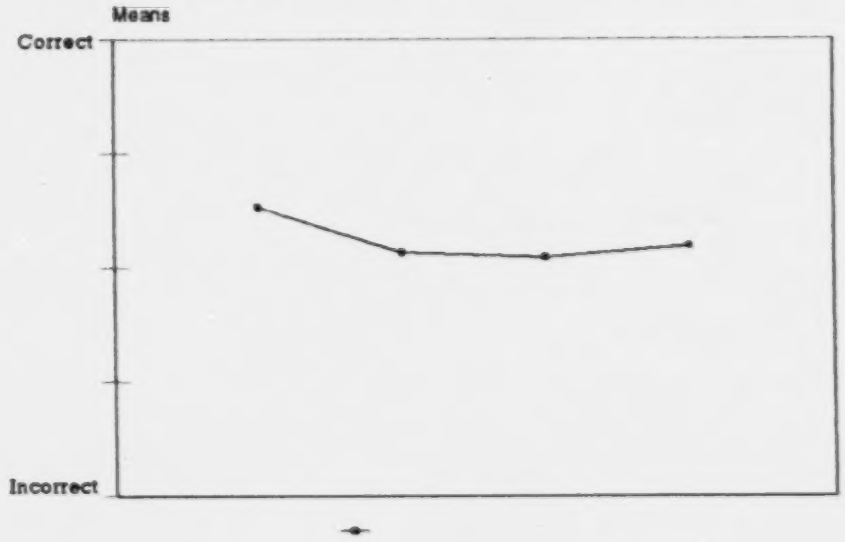
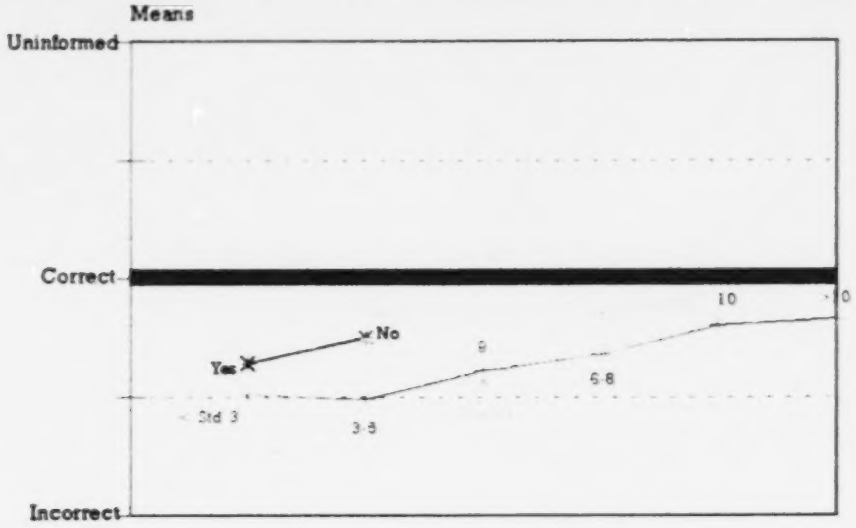


FIGURE B.3
MEAN SCORES FOR KNOWLEDGE OF TRANSMISSION VIA CASUAL CONTACT



Population group · Education ✳ Sexual contact

FIGURE B.4
MEAN SCORES FOR KNOWLEDGE OF STDs

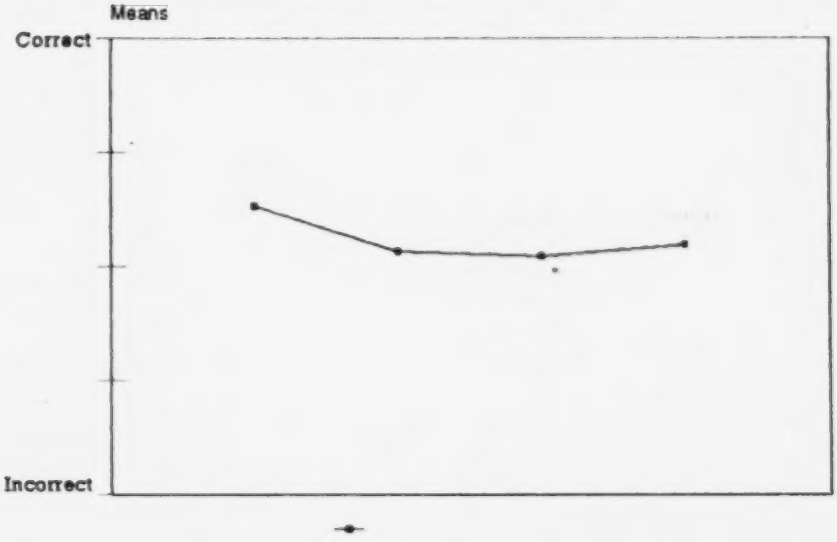


FIGURE B.3
MEAN SCORES FOR KNOWLEDGE OF TRANSMISSION VIA CASUAL CONTACT

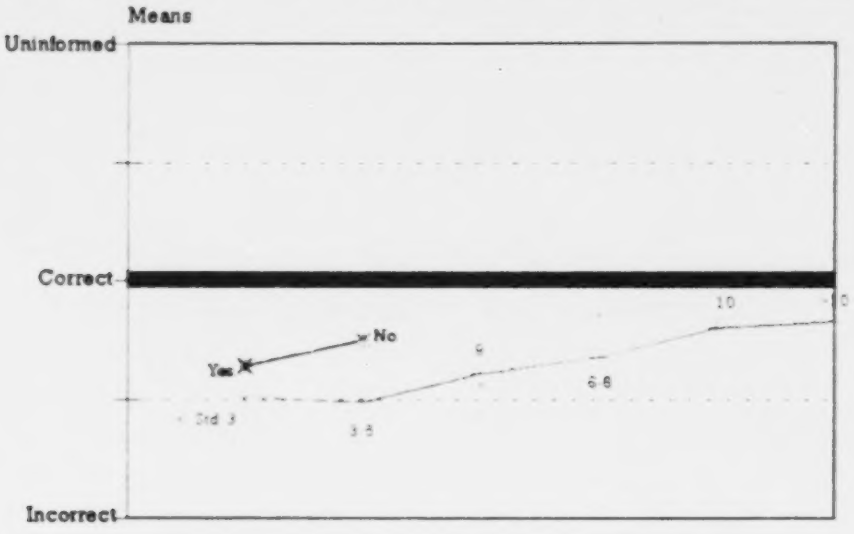


FIGURE B.4
MEAN SCORES FOR KNOWLEDGE OF STDs

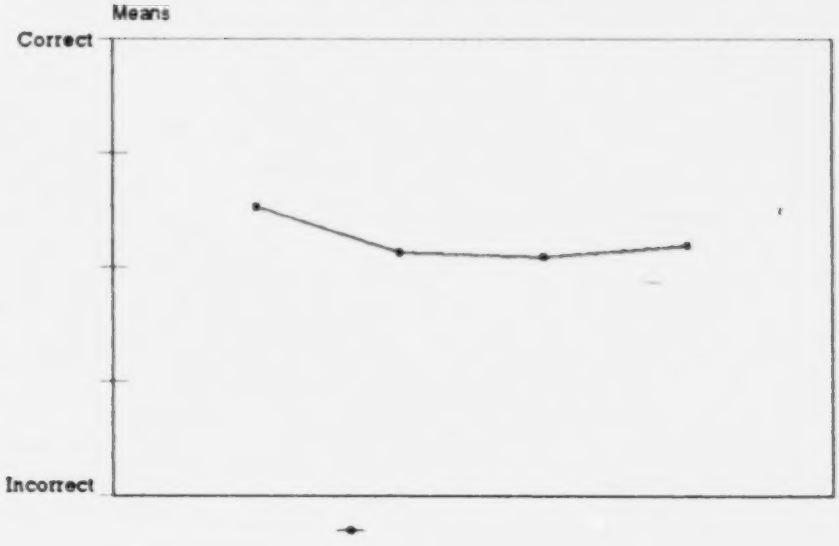
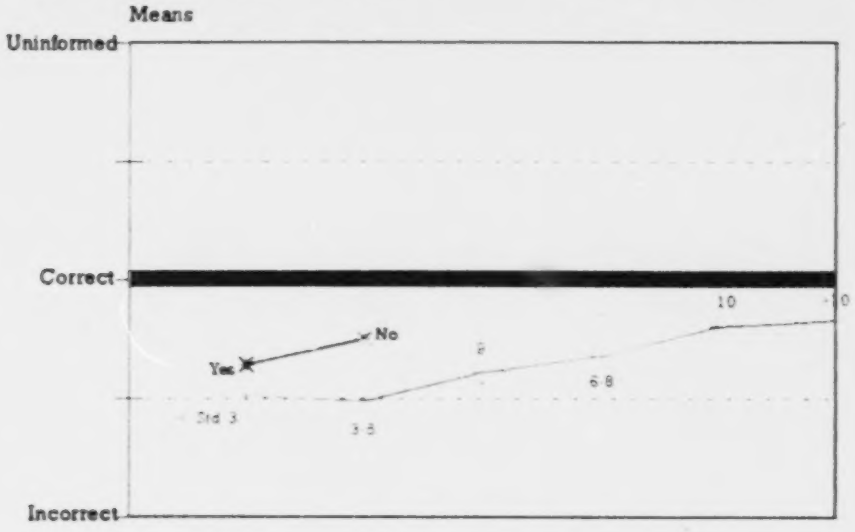


FIGURE B.3
MEAN SCORES FOR KNOWLEDGE OF TRANSMISSION VIA CASUAL CONTACT



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MEAN SCORES FOR KNOWLEDGE OF STDs

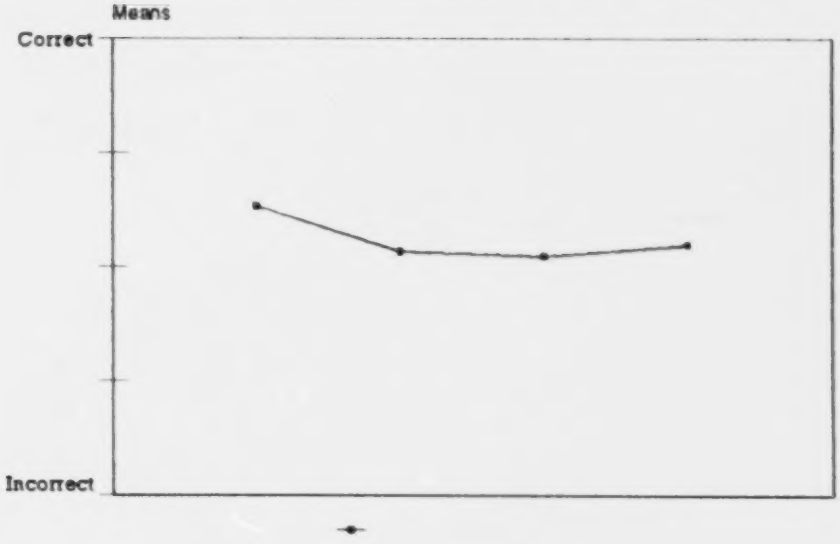
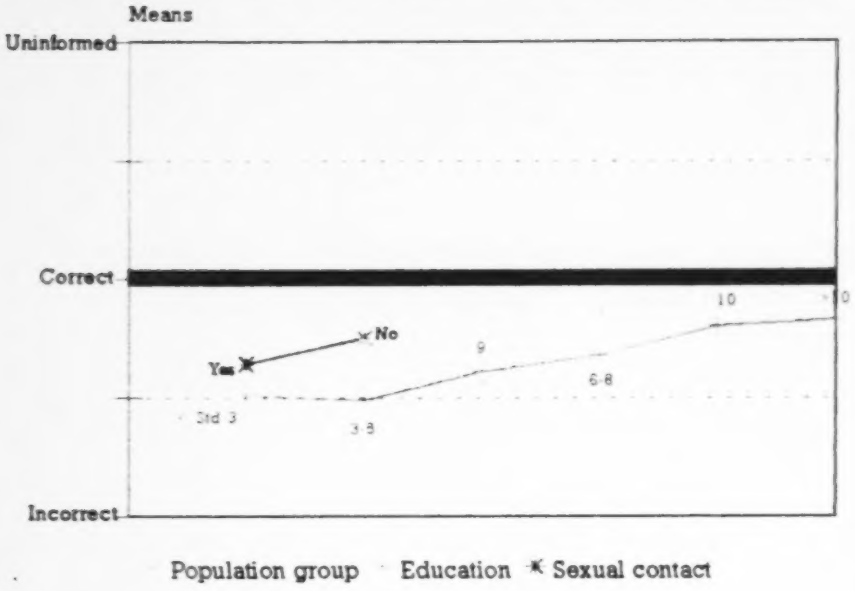


FIGURE B.3
MEAN SCORES FOR KNOWLEDGE OF TRANSMISSION VIA CASUAL CONTACT



Population group Education Sexual contact

FIGURE B.4
MEAN SCORES FOR KNOWLEDGE OF STDs

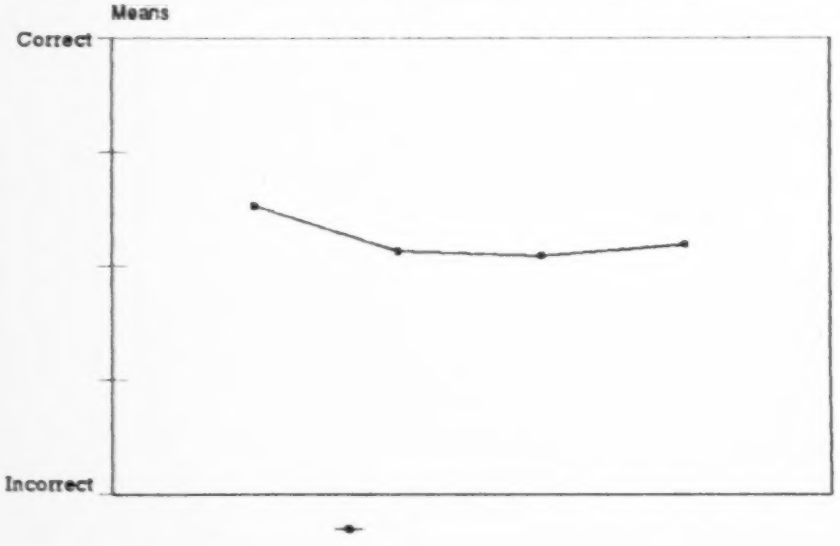


FIGURE B.3
MEAN SCORES FOR KNOWLEDGE OF TRANSMISSION VIA CASUAL CONTACT

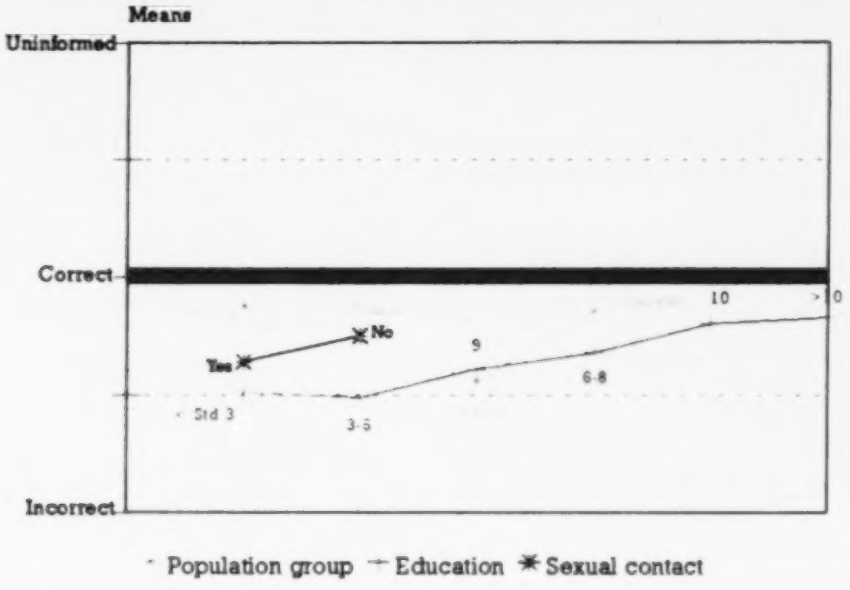


FIGURE B.4
MEAN SCORES FOR KNOWLEDGE OF STDs

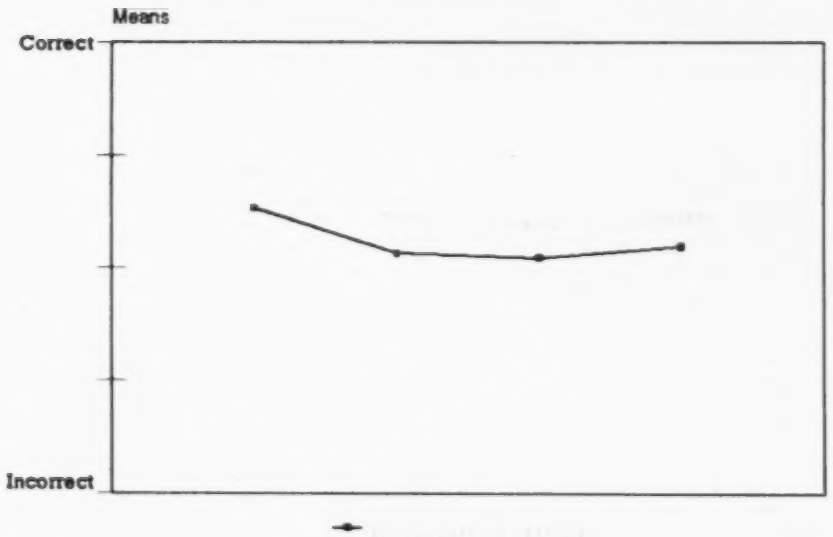


FIGURE B.5
MEAN SCORES FOR KNOWLEDGE OF PREVENTION

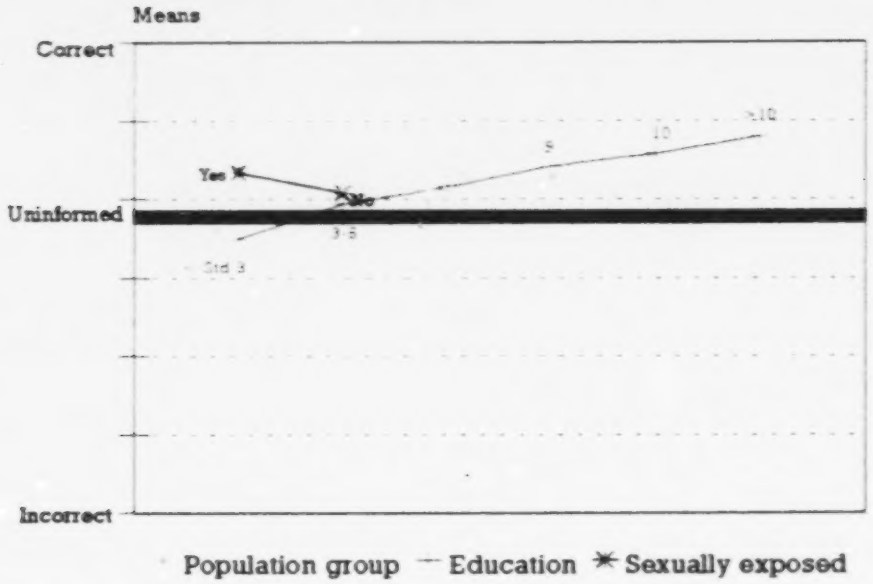
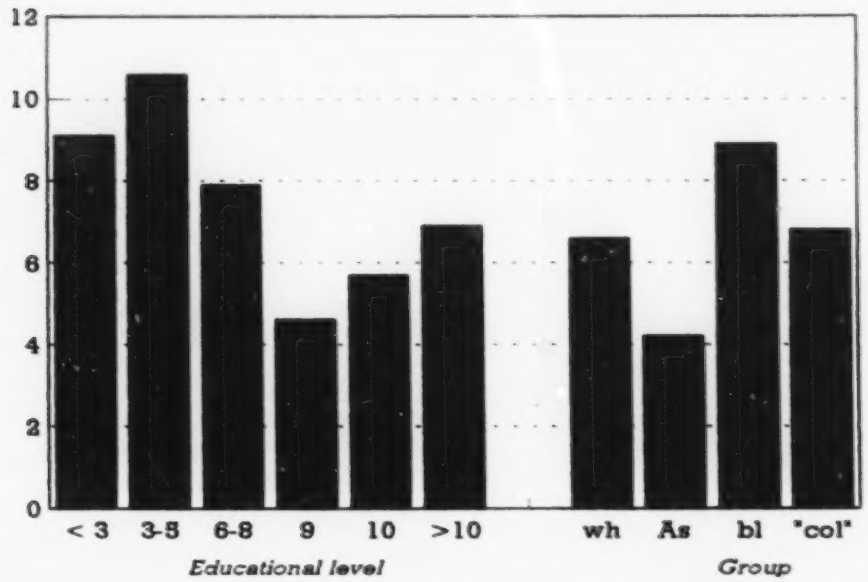


FIGURE B.6
% RESPONDENTS INDICATING INAPPROPRIATE MEANS OF PROTECTION AGAINST HIV



Study of knowledge, attitudes, perceptions and beliefs regarding HIV and AIDS (KAPB)